

1907.

Annual Reports

AND

VITAL STATISTICS.

The Rural District of

BUCKLOW,

AND

The Urban Districts of

**KNUTSFORD, MIDDLEWICH, WINSFORD,
AND BIDDULPH.**

PREPARED BY

T. W. H. GARSTANG, M.A., Oxon.,

M.R.C.S., L.S.A., D.P.H. Viet.,

*Fellow (Past-President of the North-Western Branch) of the
Incorporated Society of Medical Officers of Health; Fellow
of the Royal Institute of Public Health; Member of the
Sanitary Institute; &c., &c.*

The Medical Officer of Health of the Districts.

**In accordance with Instructions from the Local
Government Board.**

Gongleton:

PRINTED BY ROBT. HEAD, "CHRONICLE" OFFICE.

INDEX . .

	PAGE
Introductory Letter... ..	6
General Subjects	8
Bucklow Rural District	19
Biddulph Urban District	53
Knutsford Urban District	73
Middlewich Urban District	91
Winsford Urban District	111
Bucklow Joint Hospital Board	137

TABLE 1.
VITAL STATISTICS FOR 1907.

	Annual Rates per 1,000 Living.			Infant Mortality— Annual Death-rate of Infants under 1 Year per 1,000 Births.
	Births.	Deaths from all Causes.	Deaths from Seven Chief Epidemic Diseases.	
England and Wales ...	26·3	15·0	1·26	118
Rural England & Wales	25·6	14·7	0·91	106
76 Great Towns ...	27·0	15·4	1·54	127
142 Smaller Towns ...	25·7	14·5	1·29	122
Bucklow Rural ...	18·5	11·3	0·3	81
Biddulph Urban ...	34·8	13·0	0·3	97
Knutsford Urban ...	23·3	11·7	0·9	97
Middlewich Urban ...	28·9	15·9	1·4	98
Winsford Urban ...	28·5	13·7	1·0	104

(See also Table on page 4).

TABLE 2.
DETAILS OF DEATH RATES, 1907.

DEATHS FROM	Bucklow Rural.	Biddulph Urban.	Knutsford Urban.	Middlewich Urban.	Winsford Urban.
Seven Principal Zymo- tic Diseases }	0·3	0·3	0·9	1·6	1·0
Other Infectious Diseases	—	—	—	0·2	0·6
Phthisis... ..	0·6	0·5	0·6	1·4	0·5
Other Tuberculous Diseases ... }	0·3	0·5	0·7	1·4	—
Influenza	0·4	—	—	—	0·1
Respiratory Diseases ...	2·5	2·8	2·5	2·6	2·0
Heart Disease	2·3	1·0	1·1	2·6	2·1
Violence	0·2	0·4	0·4	0·6	0·7
Alcoholism	0·1	—	0·4	0·2	0·1
Cancer	0·6	0·7	1·1	0·8	1·0
Infantile Deaths not included above }	0·9	2·3	1·1	1·0	2·0
Senile Deaths not in- cluded above }	2·2	1·6	1·9	1·6	1·9
Miscellaneous	0·9	2·9	1·0	1·9	1·7
	11·3	13·0	11·7	15·9	13·7

(See also Table on page 3).

TABLE 3.
INFANTILE DEATHS.

	Breast fed.	Bottle fed.	Mixed feeding.	Not as- certained	Total.
Congenital Defects ...	—	—	2	3	5
Premature	3	9	—	24	36
Dentition	5	3	4	—	12
General Atrophy ...	3	1	—	3	7
Convulsions	3	7	—	—	10
Injury at Birth ...	—	—	—	1	1
Starvation of Mother ...	1	—	—	1	2
Pneumonia & Bronchitis	18	6	4	—	28
Whooping-cough ...	4	1	—	—	5
Overlaid	1	2	—	—	3
Sundry Causes	—	5	3	—	8
	38	34	13	32	117

To the Chairmen and Members of the several District Councils whose Reports follow:

Gentlemen,

In presenting my thirteenth Annual Report for the Bucklow, Biddulph, and Knutsford Districts, and twelfth for the Middlewich and Winsford Districts, I ask permission very respectfully to draw attention again to the prefatory letter which I published in my Volume for 1904.

I am responsible for the Public Health of about 50,000 persons. No other Medical Officer of Health (so far as I know) who has the care of an equal population, is without some office and clerical assistance. My Districts however are independent of one another, and only temporarily associated in my hands; so that this provision is not made for me. My only office is my private residence; clerical assistance I have none; and the preparation of the Annual Reports, a work of no little time and trouble (though one in which I take a pride), falls, to the smallest detail, on my individual and unaided efforts. In addition, all my seasonal and routine work claims daily attention; consequently my time for writing is irregular and broken; and hence the delay which each year necessarily occurs before the publication of the complete Volume.

The Local Government Board is in favour of Medical Officers of Health serving large areas and giving their whole time to the work. Such Officers must necessarily be non-resident in all their Districts (save one), and it is therefore evident that non residence is not found to interfere with the proper performance of duty. But as a large amount of travelling, both by road and by rail, is involved, it also follows that the Medical Officer of Health must

be given a free hand in the arrangement of his work. Now in my case the five Councils collectively do not pay me for the whole of my time; and (to earn my living) I have to do other work as well; the above condition therefore is doubly important to me; and I respectfully ask that it may be frankly recognised.

In my thirteen years' work I can honestly say that I have never yet failed to give prompt personal attendance in any matter of sufficient importance to demand it; and I propose to follow the same routine in the coming year, gratefully acknowledging my indebtedness to the several Inspectors of Nuisances for their local assistance. With their co-operation your work will continue to be done efficiently, as it has been in the past, without unfair demands upon my time.

I beg to thank you, Gentlemen, for your continued confidence; and am,

Your obedient Servant,

T. W. H. GARSTANG.

January 1st, 1908.



GENERAL SUBJECTS.



Printing.—In consequence of the practical difficulty of printing the Official Tables, with all their “Notes,” on pages of this size, the “Notes” are (as before) omitted from the Tables, to give more room for the figures; and, as they have been printed in full in the Reports for 1901, 1902 and 1903, they will on this occasion be omitted altogether.

Instructions.—It is of course understood that all the “Instructions” have been attended to; and that all the information asked for is given in the separate Reports.

Errata.—In my 1906 Reports I have to confess that I overlooked the instruction to classify all deaths *under one year of age* from enteritis, &c., as deaths from *diarrhœa*. Fortunately the error only affected two Tables. Middlewich should have had 4 diarrhœa deaths instead of 2; and the zymotic death-rate should have been 1·2, instead of 0·8; and Bucklow should have had 11 diarrhœa deaths instead of 3; and the zymotic death-rate should have been 0·9 instead of 0·5. The corrected figures will be supposed to be inserted in the 1906 Tables whenever reference is made to them.

Arrangement.—I propose to follow my usual plan, that is, to write first a certain number of paragraphs, which are intended to be considered as an integral part of each of the individual Reports which follow. The matter in the Reports is arranged in the same order that is adopted by the County Medical Officer of Health; any subjects omitted are inapplicable to the District under consideration, or because I have no means of obtaining information, or for other similar reason.

This year it is the turn of the Bucklow Report to be written first; the others will follow in the usual order.

1907.—Like its two immediate predecessors the year under review has been remarkably free from exceptional incidents. Scarlet fever has still lingered in Knutsford, and diphtheria in Middlewich, but with diminishing intensity and fatality. (At the moment of writing there are hopes that both are at an end). In the later months of the year measles and whooping-cough have appeared rather widely, especially in Winsford and Bucklow.

GENERAL FALL IN RATES.

The birth-rate is the lowest on record in Bucklow, Middlewich, and Winsford; lowest but two in Knutsford; and only in Biddulph has it kept up. The death-rate is the lowest on record in Bucklow, Knutsford, and Biddulph, and lowest but three in Middlewich and Winsford. The zymotic-rate is the lowest on record in Bucklow and Biddulph, lowest but two in Middlewich and Winsford, and lowest but three in Knutsford; and the Infant Mortality is the lowest on record in Middlewich, lowest but one in Bucklow and Biddulph, and lowest but two in Knutsford and Winsford. These figures all refer to the results in 12 years, 1896 to 1907 inclusive. They are startling in their unanimity! **The progressive fall in the birth-rate continues to be the most marked feature.** I put forward the idea tentatively that this may prove to be an important factor in the lowering of the other Rates; in other words that the apparent all-round improvement may not really be due to improvement in sanitation and environment, but may be due to the lower proportion of infants in the population.

THE OFFICIAL TABLES.

These are the same as for the previous year, except for a slight extension of the Factories and Workshops Table issued by the Home Office. In many Districts this will require laborious compilation, and will be of primary importance. My Districts however are singularly free from the special trade conditions towards which it is directed.

The instructions as to the classification of deaths in Tables (Local Government Board) IV. and V. are also now very complete in detail; but unfortunately they cannot control the vagaries of the individual certifying medical practitioner. The remarks which I ventured to make last year on the nomenclature of "diarrhœa" had already been anticipated by the Local Government Board (see earlier paragraph "Errata"); and I submit further evidence on this important point in a subsequent paragraph on "Infantile Mortality."

It is to be observed that the official instructions direct that "deaths of residents registered in Public Institutions beyond "the District" are to be taken into account; but *no directions are given as to how such information is to be obtained.*

ALTERATION IN DECENNIAL AVERAGES.

In all Tables, and other places, where "the average of the last ten years" is referred to as a standard, it is to be noted

that this standard itself varies slightly from year to year. This time the year 1896 drops out, and the year 1906 comes in.

The result is usually a fractional lowering of the standard, which tends to make the test of comparison gradually more severe.

I may note, in passing, that this year, for the first time, in those decennial Tables, *every* figure and *every* Rate is of my own registration and calculation.

ESTIMATES OF POPULATION.

These have been made with scrupulous care, so far as is possible in the absence of exact information. I rely upon an enumeration of inhabited houses, made from the rate-book; and add to this new houses nearing completion within the knowledge of the Surveyor; and multiply the total by the number of inhabitants per house as actually enumerated at the last Census.

The liability to error will of course increase with each year that passes, in the inter-Censal period.

All knowledge, on broad lines, of the sanitary condition of a District, as indicated by the number of deaths occurring within it, in a given time, in proportion to its population, **and in comparison with neighbouring Districts**, is expressed in, and derived from, the figures which are periodically calculated, and published, and called "Rates"; and it is therefore clear that no trouble is too great to take, to ensure the absolute accuracy of these figures, and this depends entirely upon a correct knowledge of the population. With a Census taken only once in 10 years, errors are unavoidable. If the Census were taken every 5 years they would be automatically reduced by about 75 per cent., and would become comparatively unimportant.

INTER-NOTIFICATION OF DEATHS OF NON-RESIDENTS.

This has been systematically carried out during 1907. Without enumerating the details I may just say that I have sent 74 notices and received 42; (including 16 inter-communications between my own Districts); making a total in 8 years of 554 sent and 156 received. (See Annual Report, 1905, page 8).

PHTHISIS AND TUBERCULAR DISEASES.

The figures for the ten years 1897 to 1906 were given in my last Annual Report. Reference to Table 4 shows that we have now ascertained a stable average; the only alteration this year being a fractional increase

TABLE 4.

Deaths and Death-rates.												
	1897 to 1906.				1907.				TOTAL.			
	Phthisis.	Other Tubercular Diseases.	Total.	Rate.	Phthisis.	Other Tubercular Diseases.	Total.	Rate.	Phthisis.	Other Tubercular Diseases.	Total.	Rate.
Bucklow R. ...	156	59	215	1.0	13	6	19	0.9	169	65	234	1.0
Biddulph U. ...	54	24	78	1.1	4	4	8	1.0	58	28	86	1.1
Knutsford U.	32	13	45	0.9	3	4	7	1.3	35	17	52	0.9
Middlewich U.	37	33	70	1.4	7	7	14	2.8	44	40	84	1.6
Winsford U.	76	37	113	1.1	5	0	5	0.5	81	37	118	1.1
	355	166	521	1.07	32	21	53	1.07	387	187	574	1.1

at Middlewich. For reasons given in a later paragraph I believe the number of deaths from "other tubercular" diseases is liable to exaggeration. It is probable, in my opinion, that the average Rate from phthisis and other tubercular diseases does not exceed 1.0, and may even be a little below it; the phthisis Rate being 0.7, and the "other tubercular" Rate being 0.3.

VOLUNTARY NOTIFICATION OF PHTHISIS.

The notifications in 1907 were 7; see Table 5; although we have just seen that 32 deaths occurred. The voluntary system may therefore be considered to have failed; and compulsory notification will no doubt, sooner or later, be enforced.

TABLE 5.

Notifications of Phthisis.								
	1901	1902	1903	1904	1905	1906	1907	Total.
Bucklow R. ...	2	1	6	4	5	2	2	22
Biddulph U. ...	0	0	1	0	0	0	0	1
Knutsford U....	1	0	0	0	0	0	0	1
Middlewich U...	1	2	0	2	1	1	0	7
Winsford U. ...	9	7	10	4	3	1	5	39
	13	10	17	10	9	4	7	70

NOTIFIABLE INFECTIOUS DISEASES.

TABLE 6.

	Notifications.								
	1890	1891	1892	1893	1894	1895	1896	1897	1898
Bucklow R. ...	39	46	107	240	182	79	65	59	46
Biddulph U....	20	22	24	15	39	25	55	17	7
Knutsford U.	—	—	—	—	—	25	12	5	6
Middlewich U.	0	9	1	123	24	53	67	31	18
Winsford U....	42	40	43	267	31	47	197	47	22
	101	117	175	645	276	229	396	159	99

	Notifications.								
	1899	1900	1901	1902	1903	1904	1905	1906	1907
Bucklow R.	106	96	158	102	97	117	108	106	72
Biddulph U ...	118	26	21	13	28	50	30	47	22
Knutsford U	70	18	17	8	25	17	14	57	64
Middlewich U	23	12	8	35	26	80	61	47	56
Winsford U....	39	147	93	44	23	43	51	38	80
	356	299	297	202	199	307	264	295	294

Tables 6 and 7 show that 1907 has slightly exceeded the average in prevalence of infectious diseases, notifications having been 294, the average of 17 years being 260. Scarlet fever has increased in Knutsford and Winsford, whilst declining in Bucklow. Diphtheria has increased in Middlewich and Winsford, whilst declining in Bucklow and Biddulph.

TABLE 7.

Notifications in 1907.

	Estimated Population.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	TOTAL.	Case-rate per 1000 of popula- tion.
Bucklow R. ...	22000	0	53	9	4	1	5	72	3.3
Biddulph U. ...	7070	0	4	17	0	0	1	22	3.1
Knutsford U. ...	5310	0	52	4	6	1	1	64	12.0
Middlewich U. ...	4950	0	10	37	0	1	8	56	11.4
Winsford U. ...	10430	0	34	20	1	9	16	80	7.7
	49760	0	153	87	11	12	31	294	6.0

Enteric fever has fallen 50 per cent., Biddulph and Middlewich being entirely free. Puerperal fever has increased in Winsford; in which District there is the largest number of untrained midwives. Erysipelas is, as usual, rarely notified except in Middlewich and Winsford, a fact which can only be due to the idiosyncrasies of certain practitioners.

DEATHS FROM ZYMOTIC DISEASES.

Six of the "seven principal zymotic diseases" are, this year, in evidence.

TABLE 8.

Deaths from Zymotic Diseases in 1907.

	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea.	TOTAL.	Rate.
Bucklow R. ...	0	1	0	0	1	2	2	6	0.3
Biddulph U. ...	0	0	2	0	0	0	0	2	0.3
Knutsford U. ...	0	1	0	1	1	2	0	5	0.9
Middlewich U. ...	0	0	4	0	3	0	1	8	1.4
Winsford U. ...	0	0	5	0	1	3	2	11	1.0
	0	2	11	1	6	7	5	32	0.6

In previous years the figures have been

1900	...	56	...	1'2
1901	...	61	...	1'3
1902	...	60	...	1'3
1903	...	59	...	1'3
1904	...	69	...	1'5
1905	...	82	...	1'7
1906	...	58	...	1'2

Table 8 is particularly satisfactory. The number of deaths, and the Rate, are alike the lowest of the last eight years. This is almost entirely due to the practical absence of diarrhœa as a cause of death; the numbers having fallen from 27 to 5; and the further cause of this good fortune is mainly the occurrence of a summer characterised by wetter and colder weather than usual. A smaller factor may be increasing knowledge among parents as to the proper feeding of infants, a matter which I take every opportunity of explaining.

As Public Vaccinator in the Townships of Altrincham, Bowdon, and Hale, (each of which is an independent Urban District, **not** under my charge), I have had exceptional opportunities of thus teaching the mothers of precisely those infants which were ailing and not thriving (owing to improper feeding), yet were not receiving medical care. And although I would not wish to put forward a claim officially, yet I flatter myself privately that my efforts have had something to do with the reduction in infant mortality figures shown by the following statistics :—

		Altrincham.		Bowdon.		Hale.
1900	...	180	...	60	...	143
1901	...	139	...	93	...	84
1902	...	133	...	128	...	60
1903	...	139	...	128	...	64
1904	...	183	...	93	...	70
1905	...	116	...	37	...	101
1906	...	117	...	78	...	35
1907	...	114	...	27	...	63

and I trust the respective Medical Officers of Health will not grudge me this little gratification.

THE CAUSES OF INFANTILE MORTALITY.

Sundry investigations (into this subject) have been made, and results recorded, by several writers, but (so far as I am aware) only in large cities and boroughs. It occurred to me that it would be interesting to obtain a similar record in a purely Rural District, (such as my Districts, taken together, may be fairly called. My total estimated population is 49,760; and acreage 71,334; or 0·7 persons per acre). During 1907 therefore I have **personally*** investigated the causes of death of 117 infants, being 114 deaths in 1907 and 3 on 31st December, 1906.

*Except 2 which Mr. Hickson did for me in Winsford, and a number which Mr. Gibson did for me in Biddulph.

The first lesson I learnt was the physical difficulty of the work. For instance, I have travelled 20 miles, by road, to investigate 2 cases; and I have spent one long day, by rail and road, to investigate 6 cases. As the whole matter was a "labour of love" and quite outside the defined **duties** of my office, I beg to say that I consider the labour involved to be **greater** than is warranted by the value of the results obtained, and I do not propose to repeat it in 1908, (unless requested to do so by the Local Government Board or County Council, in which case I will place myself, with pleasure, at their disposal).

The second lesson I learnt was the extreme **delicacy** of the enquiry. In 2 cases (out of 117) my visits were resented; though I have reason to believe that resentment was appeased by subsequent explanation. On the other hand I can record numerous cases in which the mothers were obviously **glad** to discuss details. The visits were made, as a rule, from 1 to 3 months after death; not following too closely, out of consideration for the mother's feelings; yet not delayed so long as to prevent accurate information being obtained.

In the third place, I found that the special points to be enquired into varied considerably with the age of the child; and I divided my cases into 6 groups, viz.: under 1 day, between 1 day and 1 week, between 1 week and 1 month, between 1 and 3 months, between 3 and 6 months, and between 6 and 12 months. The question of improper feeding does not concern the earlier classes, whilst that of prematurity or congenital defects does not concern the later ones; though each is of the greatest importance at the other end of the list. This just by way of example.

In the fourth place, a conclusion was forced upon me which I hesitate to set down, and only do so under a strong sense of public duty, viz.: that among a small minority of medical men there is a regrettable laxity in filling up death certificates, (of babies, anyway).

It may of course be retorted that the certifying practitioner saw the child alive, and that I did not. I append the following instances, upon which I base my opinion:—

- (a) Child died at 6 weeks from septic poisoning at the umbilicus. Certified as *pemphigus*.
- (b) Child died at 9 months, from meningitis. Entirely breast fed. Certified as "*tubercular*."
- (c) Child died at 9 months from improper feeding. Had vomiting and stomach symptoms but no convulsions. Certified as *meningitis*.
- (d) Child died at 10 months from teething troubles. Entirely breast fed. Certified as *tubercular meningitis*.
- (e) Another case, *similar*.

- (f) Child died at 8 months from improper feeding. No head symptoms noticed till last day. Certified as *cerebral abscess*.
- (g) Child died at 7 months from hydrocephalus. Certified simply as *meningitis*.
- (h) Child died at 7 days from prematurity and congenital malformation. No diarrhœa. Certified as *acute catarrhal enteritis*.
- (i) Child died at 2 months from improper feeding and convulsions. No diarrhœa. Certified as *gastro-intestinal catarrh*.
- (j) Child died at 10 months. Entirely breast fed. No diarrhœa. Certified as *gastro-enteritis*.
- (k) Child 4 months. *The same*.
- (l) Child died at 1 month probably from improper feeding. All its food however had been boiled. Certified as *tubercular peritonitis*.
- (m) Child died at 14 days, in convulsions. No cough. Certified as *bronchitis*.
- (n) Child died at 7 weeks from congenital malformation. No cough. Certified as *1 month old*, and *bronchitis*.
- (o) Child, 3 months, certified as diarrhœa, in November. Another child, 18 months, in same house, certified as zymotic enteritis, in October. What these cases really were I cannot suggest; but as there had not been a single other case of zymotic enteritis in the District, and the summer had been cold and wet, I find it difficult to agree, on paper, (and I admit that I am only "on paper,") with this diagnosis.

In addition to the above, 3 cases of "overlying," (clear enough to my mind), one uncertified, and two the subject of inquests, were returned as respectively "*convulsions*," "*marasmus*," and "*convulsions, natural causes*."

Moreover among older children, deaths that I have strong reason to believe were due to diphtheria have been certified as "*tonsillitis and syncope*," "*laryngitis and asphyxia*," "*pharyngeal abscess*," "*simple catarrhal laryngitis*"; a probable death from scarlet fever was certified as *pneumonia*; a probable death from measles as *emphysema and syncope*; and a probable death from phthisis as *empyema*.

I distinctly state again that I **cannot prove** any single case. My opinion is one that has been growing for many years, from my study of the weekly death-returns; and at that I must leave it.

1907 alone furnishes the above curious "**discrepancies**" (if they are nothing else); and if there is any foundation for my opinion, it discloses an element of mis-information, which must

have an effect in depreciating the value of statistics based upon it.

To return now to the 117 deaths investigated. Bucklow provided 33, Knutsford 12, Middlewich 16, Winsford 32, and Biddulph 24. Classified by age, there were 16 less than 1 day; 16 between 1 day and 1 week; 15 between 1 week and 1 month; 26 between 1 month and 3 months; 16 between 3 months and 6 months; and 28 between 6 months and 12 months.

Put in another way, 76 per cent. occurred in the first 6 months; 62 per cent. in the first 3 months; 40 per cent. in the first month; 27 per cent. in the first week; and 14 per cent. within the first day.

Group I. Under 1 day. 16 deaths; 9 male, 7 female. 1 was due to congenital defects. The other 15 children were all born prematurely. In 3 cases this was attributed to fright or shock; in 5 cases to physical exertion; in 4 cases the mother had had one or more previous miscarriages; in 1 case the mother died too of puerperal convulsions; and in 1 case there was no reason ascertainable beyond the fact that the babies were twins, and weakly.

Group II. From 1 day to 1 week. 16 deaths; 10 male and 6 female. Of these 2 were due to congenital defects; 3 were due to general debility which could not be accounted for; 1 child was injured at birth; 1 was a twin and the mother had been short of food; the other 9 children were prematurely born, in 2 cases this was attributed to mental shock, in 1 case to over-exertion; in 2 cases to the mothers being ill; in 1 case the child was a twin, the other twin born dead, and the mother dying too of heart-disease; in 1 case there had been previous miscarriages; in 1 case no reason could be assigned.

Group III. 1 week to 1 month. 15 deaths; 7 male and 8 female. 8 children were born prematurely (including 2 sets of twins); in every case they were being artificially fed, on the plea that they were "too weak to suck"; in 5 cases the mothers were ill; in 1 case convulsions occurred; in 2 cases (twins) no reason could be assigned. Of the 7 children born at full time, 2 were bottle fed and died of convulsions; 5 were breast fed, (1 was overlaid, 1 had a mother short of food, 1 died from bronchitis, 1 from debility and 1 from convulsions).

Group IV. 1 month to 3 months. 26 deaths; 13 male and 13 female. 11 were breast fed, 11 bottle fed, 2 mixed, 2 not ascertained. Of the breast fed children, 3 died from pneumonia, 3 from bronchitis, 3 were premature, (and died from bronchitis, debility and diarrhoea respectively,) and 2 died from debility and convulsions. Of the bottle fed children, 1 died from pneumonia, 1 from whooping-cough, 1 from septic poisoning, 2 were overlaid, 2 died from convulsions, 1 was premature and

died from convulsions, 1 died from atrophy, 1 from diarrhœa, and 1 from tubercular disease. The 2 which had mixed feeding died from bronchitis and eczema respectively; and the 2 remaining from congenital defects and erysipelas respectively.

Group V. 3 months to 6 months. 16 deaths, 9 male and 7 female. 8 were breast fed, 4 bottle fed, 1 mixed, 3 not ascertained. Of the breast fed 2 died from pneumonia, 2 from bronchitis, 2 from whooping-cough, 1 from atrophy and 1 from thrush. Of the bottle fed 2 died from convulsions, 1 from acute peritonitis, and 1 from dropsy. The child with mixed feeding died from bronchitis; and the other 3 from congenital defects, diarrhœa, and pneumonia respectively. 2 cases in this group were prematurely born.

Group VI. 6 months to 12 months. 28 deaths; 14 male and 14 female. 14 were breast fed, 9 bottle fed, and 5 mixed. None were premature. Of the breast fed, 6 died from pneumonia, 1 from bronchitis, 2 from whooping-cough, and 5 from dentition troubles. Of the bottle fed, 4 died from pneumonia, 1 from bronchitis, 3 from dentition, and 1 from cerebral abscess. Of those which were partly breast fed and partly bottle fed, 1 died from pneumonia and 4 from dentition.

Tabulation of Results. See Table 3. There are several interesting points to be observed. But as the numbers are, after all, relatively small, I will not strain any argument, but will simply leave them to the intelligent consideration of the reader.

T. W. H. GARSTANG.

January 18th, 1908.



Bucklow Rural District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1907.

Population at Census, 1891, 20,382.

„ „ „ 1901, 19,850. (N.B.—Area diminished).

Estimated Population in middle of 1907, 22,000.

Area of District in Acres (exclusive of area covered by water) 57,642—544=57,098.

Number of Inhabited Houses, 4,115.	} At Census of
Average Number of Persons per House, 4·8.	
	1901.

Institutions within the District receiving sick and infirm persons from outside the District: St. Anne's Home, Dunham Massey, (Manchester Consumption Hospital). Baguley Sanatorium for General Infectious Diseases, and Baguley Temporary Small-pox Hospital. (Manchester Corporation). David Lewis Epileptic Colony, Marthall.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, Knutsford. General Hospital, Altrincham. Manchester Royal Infirmary. Stockport Infirmary. Monsall Hospital.

Other Institutions, the deaths in which have been distributed among the several localities in the District: Nil.

Birth Rate per 1,000 living, 18·5.

Death Rate per 1,000 living, 11·3.

Death Rate from Seven Principal Zymotic Diseases, 0·3.

Deaths under one year in proportion to 1,000 Births, 81.

Hospital.	} See above.
Workhouse.	

Each birth or death contributes to the Rate 0·04545.

TABLE 9.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1907 and Previous Years.

Name of District, BUCKLOW (RURAL).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year.		At all Ages.						
		Number.	Rate.	Number.	Rate per 1000 Births registered.	Number.	Rate.				Number.	Rate.
1897	22007	509	23'1	60	120	305	...	...	...	...	298	13'5
1898	22722	541	23'8	54	100	273	...	...	...	...	267	11'8
1899	23359	535	22'9	69	129	336	...	...	...	...	333	14'3
1900	19473	425	21'8	61	143	270	...	...	...	..	289	14'8
1901	19850	435	21'9	56	129	260	...	5	...	...	278	14'0
1902	20105	440	21'9	32	73	228	...	7	7	22	235	11'7
1903	20416	475	23'3	54	114	272	...	25	19	20	273	13'4
1904	20700	455	21'9	39	86	262	...	18	16	18	242	11'6
1905	21145	415	19'6	41	99	239	...	21	14	21	254	12'0
1906	21660	474	21'9	55	116	255	...	19	17	31	261	12'0
Averages for years 1897-1906	21144	470	22'2	52	111	270	...	16	15	22	273	12'9
1907	22000	407	18'5	33	81	249	...	21	18	21	248	11'3

TABLE 10.—(Local Government Board Table II.)

Vital Statistics of separate Localities in 1907 and previous Years.

Name of District, BUCKLOW (RURAL).

NAMES OF LOCALITIES.	1.—ALTRINCHAM.				2.—LYMM.				3.—KNUTSFORD.				4.—WILMSLOW.				5.—SALE.			
	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1897	10375	230	147	45	12	3602	79	44	26	4863	115	62	21	4863	115	62	21	4863	115	62
1898	10800	233	115	24	8	3653	99	39	8	4931	129	78	14	4931	129	78	14	4931	129	78
1899	11267	269	155	33	8	3653	81	52	13	5101	116	85	15	5101	116	85	15	5101	116	85
1900	7263	157	101	22	10	3660	80	49	11	5200	122	83	18	5200	122	83	18	5200	122	83
1901	7608	161	105	26	7	3635	75	42	11	5371	117	82	12	5371	117	82	12	5371	117	82
1902	7798	170	89	9	5	3632	86	41	8	5458	115	64	10	5458	115	64	10	5458	115	64
1903	7116	173	98	25	6	3630	70	44	4	3416	65	39	7	3416	65	39	7	3416	65	39
1904	7260	163	88	17	2	3625	74	39	2	3500	61	36	5	3500	61	36	5	3500	61	36
1905	7350	159	82	18	2	3724	66	52	8	3500	49	34	4	3500	49	34	4	3500	49	34
1906	7500	167	87	18	6	3750	83	35	6	3540	60	38	6	3540	60	38	6	3540	60	38
Averages of years 1897 to 1906.	8434	188	107	24	7	3656	79	44	10	4408	95	60	11	4408	95	60	11	4408	95	60
1907	7650	156	68	6	7	3765	64	41	6	3590	46	38	4	3590	46	38	4	3590	46	38
...

TABLE 11.—(Local Government Board Table III.)

Cases of Infectious Disease notified during the Year 1907.

Name of District, BUCKLOW (RURAL).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.							NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.								
	At Ages—Years.						Altrincham.	Lymm.	Knutsford.	Wilmslow.	Sale.	David Lewis Colony.	Cottage Homes.	Altrincham.	Lymm.	Knutsford.	Wilmslow.	Sale.	David Lewis Colony.	Cottage Homes.	Total Cases removed to Hospital.	
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.																65 and upwards.
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	9	1	6	...	...	2	3	2	...	4	...	...	...	1	...	1	...	1	...	...	3	...
Erysipelas ...	5	...	1	...	...	4	3	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Scarlet Fever	53	12	28	...	12	1	9	12	7	6	9	4	1	9	7	4	5	8	4	1	38	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	4	...	...	...	2	2	1	1	...	...	1	...	...	1	...	...	...	1	...	...	2	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	72	...	13	35	15	9	...	21	7	15	10	13	4	2	11	7	6	9	4	1	43	...

TABLE 12.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1907.

Name of District, BUCKLOW (RURAL).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Re- sidents" belonging to Lo- calities, whether occurring in or beyond the District.							Total Deaths whether of "Residents" or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	ALTRIN- CHAM.	LYMM.	KNUTS- FORD.	WILM- SLOW.	SALE.	David Lewis Colony.	Cottage Homes.	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...
Scarlet Fever	1	...	1	...	...	...	...	...	...	...	...	1	...	...	2
Whooping-cough	2	2	...	...	...	...	...	...	...	...	1	1	...	...	...
Diphtheria (including Mem- branous Croup) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Other Continued ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	9	...	...	...	1	6	2	5	3	...	...	1	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	2	2	...	...	...	...	...	...	...	...	...	2	...	...	...
Enteritis	2	...	1	...	...	1	...	...	...	...	...	2	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases	7	...	...	3	1	3	...	...	1	3	...	2	...	1	1
Phthisis (Pulmonary Tubercu- losis)	13	...	...	...	...	12	1	5	1	2	...	5	...	...	2
Other Tubercular Diseases	6	2	3	...	1	...	...	4	...	1	...	1	...	...	...
Cancer, Malignant Disease	14	...	...	...	1	7	...	6	3	1	...	3	...	...	1
Bronchitis	19	2	...	...	...	3	14	5	4	4	1	5	...	...	...
Pneumonia	32	4	3	1	4	10	10	4	8	6	4	10	...	...	...
Pleurisy	3	...	...	1	1	1	...	...	1	...	1	1	...	...	...
Other Diseases of Respira- tory Organs	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver {	3	...	...	...	...	3	...	...	...	2	1	...	...	...	...
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	5	5	...	...	...	...	...	...	3	1	...	1	...	...	...
Diseases and Accidents of Parturition	2	...	...	...	...	2	...	2	...	...	...	...	...	...	...
Heart Diseases	32	1	...	2	1	16	12	10	3	4	10	4	1	...	1
Accidents	4	...	...	...	2	1	1	...	1	1	1	1	...	...	...
Suicides ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Debility, &c.	5	4	1	...	...	...	...	2	...	1	2	...	...	...	...
Convulsions, &c.	11	8	2	1	...	...	...	4	1	...	1	4	...	1	1
Cerebral Diseases	28	...	...	...	6	9	13	5	1	7	4	2	9	...	9
Old Age	33	...	...	...	...	1	32	6	7	2	9	9	...	...	...
All other causes	23	3	...	1	...	16	3	9	3	6	...	5	...	...	...
All causes	258	33	11	10	18	91	95	68	41	41	36	60	10	2	18

TABLE 13.

(Local Government Board Table V.)

Infantile Mortality during the year 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Name of District, BUCKLOW (RURAL).

CAUSE OF DEATH.			Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified	7	1	2	10	5	3	2	1	1	2	2	1	1	2	3	32		
	Uncertified	1			1												1		
Common Infectious Diseases.	Small-pox																		
	Chicken-pox																		
	Measles																		
	Scarlet Fever																		
	Diphtheria : Croup																		
Diarrhœal Diseases.	Whooping Cough							1									1	2	
	Diarrhœa, all forms								1									1	
	Enteritis, Muco-enteritis, } Gastro-enteritis }																		
	Gastritis, Gastro-intestinal Catarrh }							1										1	
	Premature Birth	3	1		4			1										5	
Wasting Diseases.	Congenital Defects	2			2													2	
	Injury at Birth																		
	Want of Breast-milk																		
	Atrophy, Debility, Marasmus }	3			3		1											4	
	Tuberculous Diseases.	Tuberculous Meningitis															2	2	
Tuberculous Diseases.	Tuberculous Peritonitis : } Tabes Mesenterica }																		
	Other Tuberculous Diseases }																		
	Erysipelas																		
	Syphilis																		
	Rickets																		
Other Causes.	Meningitis (not Tuberculous) }												1		1		2	4	
	Convulsions			1	1	2	1											4	
	Bronchitis			1	1					1								2	
	Laryngitis																		
	Pneumonia						1					2	1					4	
Other Causes.	Suffocation, overlaying																		
	Other Causes						1		1									2	
			8	1	2	11	5	3	2	1	1	2	2	1	1	2	3	33	

District of Bucklow.

Population estimated to middle of 1907 . . 22000.

Births in the year { legitimate ... 398 Deaths in the year { legitimate infants ... 30
 { illegitimate ... 9 { illegitimate infants ... 3

Deaths from all Causes at all ages, 248.

TABLE 14.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 4 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1907.

RURAL PART OF SUB-DISTRICT OF	TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
	Births.	Deaths	Zymotic Deaths.	Average 4 years.	1907.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
						Average 4 years.	1907.	Average 4 years.	1907.				
Altrincham.	156	68	0	22·7	20·4	12·2	8·9	1·5	—	24	6	35	9
Lymm ...	46	41	1	20·7	15·7	11·5	14·0	0·5	0·3	16	7	39	17
Knutsford...	64	41	0	19·8	17·0	11·5	10·9	0·3	---	14	6	34	15
Wilmslow...	46	38	1	16·8	12·8	10·5	10·6	0·4	0·3	20	4	53	10
Sale ..	95	60	4	27·1	23·3	15·4	14·7	1·5	1·0	21	10	35	16
Total ...	407	248	6	21·7	18·5	12·2	11·3	0·9	0·3	95	33	38	13

TABLE 16.
Illegitimate Infants.

RURAL PART OF SUB-DISTRICT OF	Legitimate.		Illegitimate.		Percentage of Deaths under 1 Year to Births.	
	Births.	Deaths under 1 Year.	Births.	Deaths under 1 Year.	Legitimate.	Illegitimate.
Altrincham.	151	4	5	2	2.5	40.0
Lymm	45	7	1	0	15.8	0.0
Knutsford ...	61	6	3	0	9.9	0.0
Wilmslow ...	46	4	0	0	8.7	—
Sale ...	95	10	0	0	1.0	—
Total ...	398	31	9	2	7.8	22.2

TABLE 17.
Vaccination 1906.

	Births.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Died Unvaccinated.	Postponed on Certificate.	Removed and Traced.	Lost.	Number Remaining.	Consentious Objections.
Altrincham ..	417	374	3	—	17	6	4	4	—	9
„ ...	395	343	8	—	27	6	1	4	—	6
Lymm ..	95	84	—	—	9	—	—	—	—	2
„ ...	78	71	1	—	4	1	1	—	—	—
Knutsford ...	111	96	1	—	5	8	—	1	—	—
„ ...	98	92	—	—	5	—	—	1	—	—
Wilmslow ...	109	81	—	—	8	14	3	—	—	3
„ ...	117	90	3	—	7	10	1	1	—	5
Sale ..	310	270	1	—	26	5	2	2	1	3
„ ...	293	256	2	—	25	5	1	2	—	2
Totals ...	2023	1757	19	—	133	55	13	15	1	30
1896 to 1905 inclusive	19044	16318	168	—	1585	531	94	179	16	158
Grand Totals ...	21067	18075	187	—	1718	586	107	194	17	188

TABLE 18.

Deaths 1907.

Rural part of Sub-District of	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Altrincham	20	10·6	17	8·9	17	8·8	14	7·2	68	8·9
Lymm ...	18	25·0	9	12·3	4	5·4	10	13·6	41	14·0
Knutsford ...	9	9·7	17	18·1	8	8·4	7	7·4	41	10·9
Wilmslow .	10	11·3	7	7·8	9	9·9	12	13·3	38	10·6
Sale ...	16	15·9	19	18·7	11	10·7	14	13·6	60	14·7
Total ...	73	13·5	69	12·6	49	8·8	57	10·3	248	11·3

TABLE 19.

Shewing the position of the Bucklow District as compared with 11 other Rural Districts in Cheshire in 1906.

	Birth Rate.	Place in List.	Death Rate.	Place in List.	Zymotic Death Rate.	Place in List.	Infantile Mortality Figure.	Place in List.
Best of 12 ...	28·0	—	10·0	—	0·0	—	40	—
Worst of 12.	14·5	—	14·7	—	1·2	—	116	—
Bucklow ...	21·9	8	12·0	8	0·5	5	116	11

TABLE 20.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlatina.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Cholera.	Erysipelas.	TOTAL.
1890	—	26	5	5	1	—	2	39
1891	—	28	5	7	—	—	8	48
1892	—	68	8	18	2	—	11	107
1893	—	193	18	14	1	—	14	240
1894	1	116	40	7	2	—	16	182
1895	2	39	19	11	3	—	5	79
1896	—	31	9	19	1	—	5	65
1897	—	42	3	8	—	—	6	59
1898	—	19	11	6	—	1	9	46
1899	—	83	6	7	2	—	8	106
1900	—	79	8	6	—	—	3	96
1901	—	120	23	6	—	—	9	158
1902	—	46	37	6	4	—	9	102
1903	6	52	25	7	—	—	7	97
1904	—	79	27	2	3	—	6	117
1905	—	58	31	2	3	—	14	108
1906	—	75	17	5	1	—	8	106
Total of 17 years.	9	1154	292	136	23	1	140	1755
Average of 17 years	—	68	17	8	1	—	8	103
1907	—	53	9	4	1	—	5	72

TABLE 21.

Deaths from Zymotic Diseases.

Year.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhoea.	TOTAL.	Phthisis.	Erysipelas.	Puerperal Fever.
1890	—	5	1	—	3	3	8	20	43	1	1
1891	—	1	1	1	5	4	6	18	40	—	—
1892	—	13	3	1	7	3	6	33	32	2	2
1893	2	3	6	6	1	7	18	43	28	3	1
1894	—	1	4	5	8	1	5	24	29	3	1
1895	1	—	2	5	3	4	2	17	22	1	3
1896	—	1	—	6	3	3	4	17	23	—	1
1897	—	16	1	2	1	3	15	38	26	—	—
1898	—	3	1	2	—	2	11	19	19	—	—
1899	—	—	3	1	7	3	16	30	29	1	2
1900	—	—	1	1	8	1	7	18	22	—	—
1901	—	1	2	5	8	2	10	28	15	1	—
1902	—	1	2	7	1	—	1	12	10	—	4
1903	2	2	4	7	6	1	8	30	18	2	—
1904	—	1	2	2	7	1	8	21	17	1	1
1905	—	5	4	4	1	1	6	21	12	—	—
1906	—	4	—	4	—	—	11	19	15	—	1
Total of 17 years	5	57	37	59	69	39	142	408	400	15	17
Average of 17 Years	—	3	2	3	4	2	8	24	24	1	1
1907	—	1	1	—	2	—	2	6	13	—	—

TABLE 22,
Coroner's Inquests.

DATE.	SEX	AGE.	WHERE HELD.	WHERE BELONGED TO.	VERDICT.
NON-RESIDENTS.					
July 31	F	17	Dunham Massey	Altrincham	Suicide by drowning
Aug. 28	M	33	Dunham Massey	Rusholme	Drowned in Canal
Jan. 28	M	19	Partington	Germany	Fall into ship's hold
Mar. 10	M	40	Partington	Manchester	Found drowned in Canal
May 22	F	41	D.L. Homes	Manchester	Epilepsy
July 28	M	18	D.L. Homes	Manchester	Fall, during epileptic fit
RESIDENTS.					
July 31	F	56	Timperley	Timperley	Heart disease
April 25	M	19	High Legh	High Legh	Injured by cart falling on him
May 5	F	29	Partington	Partington	Pneumonia following im- mersion in Ship Canal
June 12	M	55	High Legh	High Legh	Found dead in road, syncope
Nov. 8	M	2 hrs.	Millington	Millington	Premature birth
May 31	M	49	Tabley Superior	Tabley Superior	Apoplexy
June 19	M	2 mos.	Pickmere	Pickmere	Found dead in bed, marasmus
Sept. 14	M	62	Workhouse	Ollerton	Fall from haystack
May 17	F	96	Styal	Styal	Broken thigh from fall
Dec. 18	M	3 mos.	Northern Etchells	Northern Etchells	Convulsions
Aug. 12	M	5	Northenden	Northenden	accidentally drowned in river

TABLE 23.

Cases of Infectious Diseases notified, 1907, arranged according to Localities.

	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Total.		Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Total.
Ashley ...	...	...	...	...	...	...	...	Agden ...	2	...	...	...	...	...	2
Dunham Massey ...	9	...	...	...	...	...	9	Aston-by-Budworth ...	5	...	...	...	...	...	5
Ringway ...	1	1	...	...	...	...	2	Bollington ...	...	...	...	...	...	...	...
Timperley ...	4	2	2	1	1	...	10	High Legh ...	...	...	...	...	...	...	...
								Millington ...	...	...	...	...	...	...	...
<i>Altrincham District</i> }	14	3	2	1	1	...	21	Partington ...	...	...	...	...	...	...	...
								Warburton ...	...	...	...	...	...	...	...
								<i>Lymm District</i> ...	7	...	...	...	...	...	7
Bexton ...	1	...	...	...	...	...	1	Mobberley ...	3	1	...	...	...	...	4
Marshall ...	5	...	...	...	...	...	5	Northern Etchells ...	1	3	...	...	...	...	4
Mere ...	1	1	...	...	...	...	2	Styal ...	3	...	...	...	...	...	3
Ollerton ...	1	...	1	...	...	...	2	<i>Wilmslow District</i> ...	7	4	...	...	...	...	11
Peover Inferior ...	1	...	...	...	...	...	1								
Peover Superior ...	1	...	...	...	...	...	1	Baguley ...	1	...	...	...	...	...	1
Pickmere ...	...	...	...	...	...	...	...	Carrington ...	...	...	1	...	...	...	1
Plumbley ...	...	...	...	...	...	...	...	Northenden ...	8	...	1	2	...	...	11
Rostherne ...	...	...	...	...	...	...	...	<i>Sale District</i> ...	9	...	1	3	...	...	13
Tabley Inferior ...	1	...	...	...	...	...	1								
Tabley Superior ...	4	...	...	...	...	...	4								
Tatton ...	...	...	...	...	...	...	...	
Toft ...	2	...	...	...	...	...	2								
<i>Knutsford District</i> ...	16	2	1	...	...	...	19	SUMMARY :							
								<i>Altrincham</i> ...	14	3	2	2	1	...	21
								<i>Lymm</i> ...	7	...	...	...	...	...	7
								<i>Knutsford</i> ...	16	2	1	...	...	...	19
								<i>Wilmslow</i> ...	7	4	...	...	...	...	11
								<i>Sale</i> ...	9	...	1	3	...	...	13
								<i>Bucklow District</i> ...	53	9	4	5	1	...	73

TABLE 24.

Shewing Population, Census, 1901; Total Deaths, Deaths from Special Diseases, and at Special Ages, in entire Sanitary District, the Registration Sub-Districts, and the individual Townships, in 1907.

POPULATION CENSUS 1901.	REGISTRATION DISTRICTS AND TOWNSHIPS.	TOTAL DEATHS.	DEATHS FROM SPECIAL DISEASES.									TWO GROUPS OF AGES.		
			Scarlet Fever.	Diphtheria. Enteric Fever.	Measles.	Whooping Cough.	Diarrhea.	Total Zy- motie.	Phthisis.	Erysipelas.	Puerperal Fever.	At 65 Years and Upwards.	Under 1 Year.	
424	Ashley ...	2	...	...	...	...	...	...	...	...	...	...	...	...
2644	Dunham Massey ...	16	...	...	...	...	...	...	...	...	...	...	6	1
491	Ringway ...	8	...	...	...	...	...	...	...	1	...	...	4	1
3215	Timperley ...	42	...	...	...	...	...	...	...	4	...	...	14	4
6774	<i>Altrincham District</i>	68	...	...	...	...	...	...	...	5	...	...	24	6
110	Agden ...	1	...	...	...	...	...	...	...	...	...	...	...	...
423	Aston-by-Budworth ...	3	...	...	...	...	...	...	...	...	...	...	2	...
215	Bollington ...	6	...	...	...	...	...	...	...	...	...	...	1	1
794	High Legh ...	9	...	...	...	1	...	...	1	...	...	...	2	1
225	Millington ...	3	...	...	...	...	...	...	...	...	...	...	...	3
552	Partington ...	11	...	...	...	...	...	...	...	...	...	...	7	1
403	Warburton ...	8	...	...	...	...	...	...	...	1	...	...	4	1
2722	<i>Lymm District</i>	41	...	...	...	1	...	...	1	1	...	...	16	7
124	Bexton ...	1	...	...	...	...	...	...	...	...	...	...	...	...
244	Marthall ...	1	...	...	...	...	...	...	...	...	...	...	...	1
437	Mere ...	5	...	...	...	...	...	...	...	1	...	...	2	1
270	Ollerton ...	5	...	...	...	...	...	...	...	...	...	...	1	1
144	Peover Inferior ...	5	...	...	...	...	...	...	...	...	...	...	2	...
549	Peover Superior ...	2	...	...	...	...	...	...	...	...	...	...	...	...
203	Pickmere ...	6	...	...	...	...	...	...	...	...	...	...	2	2
333	Plumbley ...	5	...	...	...	...	...	...	...	1	...	...	2	...
413	Rostherne ...	3	...	...	...	...	...	...	...	...	...	...	1	1
129	Tabley Inferior ...	...	...	...	...	...	...	...	...	...	...	...	...	...
493	Tabley Superior ...	4	...	...	...	...	...	...	...	...	...	...	2	...
120	Tatton ...	1	...	...	...	...	...	...	...	...	...	...	1	...
176	Toft ...	3	...	...	...	...	...	...	...	...	...	...	1	...
3635	<i>Knutsford District</i>	41	...	...	...	...	...	...	...	2	...	...	14	6
1353	Mobberley ...	16	...	...	...	...	1	...	1	...	...	...	8	2
738	Northern Etchells ...	11	...	...	...	...	...	...	...	...	...	...	5	2
1153	Styal ...	11	...	...	...	...	...	...	...	...	...	...	7	...
3244	<i>Wilmslow District</i> ...	38	...	...	...	...	1	...	1	...	...	...	20	4
831	Baguley ...	8	...	...	...	...	...	...	...	...	...	...	2	2
514	Carrington ...	11	...	...	...	...	1	2	3	...	...	...	4	3
2127	Northenden ...	41	1	...	...	...	...	...	1	5	...	...	15	5
3475	<i>Sale District</i>	60	1	...	...	...	1	2	4	5	...	...	21	10
19850	(<i>Bucklow Rural</i>) (<i>District.</i>)	248	1	...	...	1	2	2	6	13	...	...	95	33

TABLES 25 & 26.

Factories and Workshops. Cow-keepers and Milk-sellers.

TOWNSHIP.	Mr. McKenzie.—On Register.						Mr. Metcalfe.	
	Inspections	Defects Found and Notices Served.	Factories.	Workshops	Domestic Workshops	Total.	Cow-keepers.	Milk-sellers.
Agden ..	2	1	—	2	—	2	3	1
Ashley ...	—	—	—	2	3	5	24	15
Aston-by-Budworth *	—	—	1	—	3	4	32	8
Baguley *	5	2	—	5	1	6	18	2
Bexton ...	—	—	2	2	—	4	5	4
Bollington *	2	—	1	1	—	2	10	6
Carrington *	7	—	—	4	5	9	9	1
Dunham Massey ...	10	4	5	13	6	24	36	15
High Legh *	6	2	—	6	2	8	44	11
Marthall *	1	—	1	1	—	2	19	12
Mere ...	—	—	1	2	4	7	25	4
Millington *	3	1	—	1	2	3	5	2
Mobberley ...	20	4	4	11	13	28	59	36
Northenden ...	40	—	3	26	36	65	13	9
Northern Etchells ...	7	4	—	4	4	8	12	6
Ollerton *	5	—	—	2	3	5	12	6
Partington *	6	—	2	4	3	9	9	2
Peover Inferior *	3	—	—	3	—	3	7	2
Peover Superior *	8	—	1	4	3	8	27	14
Pickmere *	4	1	—	2	2	4	16	4
Plumbley *	8	—	2	1	5	8	18	5
Ringway ...	—	—	1	1	—	2	27	8
Rostherne *	4	—	—	—	4	4	8	4
Styal ...	3	1	1	5	3	9	17	12
Tabley Inferior ...	—	—	—	—	—	—	4	4
Tabley Superior ...	—	—	—	3	8	11	22	15
Tatton ...	—	—	—	—	1	1	1	—
Timperley ...	25	13	6	21	17	44	15	8
Toft *	1	1	—	1	—	1	8	4
Warburton *	4	—	1	—	3	4	8	2
Total ...	174	34	32	127	131	290	513	221

NOTE : * In company with M.O.H

TABLE 27.

Annual Report of the Medical Officer of Health for the year 1907, for the Rural District of Bucklow, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	27	2	...
Workshops (Including Workshop Laundries.)	82	27	...
Workplaces	65	5	...
Total	174	34	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H. M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ...	33	33	...	...
Want of Drainage of Floors	1	1	...	...
Sanitary Accommodations—				
Insufficient ... ..	...	...	...	...
Unsuitable or defective	...	...	...	...
Total	34	34	...	...

3.—HOME WORK.

Addresses of Outworkers received from other Councils.	Addresses of Outworkers forwarded to other Councils.	Inspections of Outworkers' Premises.
Wearing Apparel— Making, &c. ...	2	2

4.—REGISTERED WORKSHOPS.

Class.	Number.
Registered Workshops ... ..	...127
Registered Domestic Workshops (Workplaces) ...	...131
Factories on Register ... ..	... 32
Total ... ..	...290

TABLE 28.

Summary of the work done in the Sanitary Inspector's Department in the Bucklow Rural District for the year ending December 31st, 1907.

Dwelling-houses and Schools—

Houses inspected	...	...	...	...	164
Schools inspected	...	...	...	...	3
Foul conditions	...	...	...	...	94
Structural defects	...	...	...	...	91

Drainage—

Drains tested	...	...	...	...	76
Drains relaid	...	...	...	...	42
Drains amended	...	...	...	...	7
Soil-pipes tested	...	...	...	...	6

Dairies and Cowsheds—

Farms	}	Inspections	...	...	586
Cowsheds					
Dairies					
Milkshops					
New Cowsheds built	...	...	...	...	5
Notices served (including lime-washing)	...	...	...	...	1056
Applications for registration	...	...	...	...

Food Inspection—

Slaughter-houses	}	Inspections	256
Butchers' Shops					
Fish Carts					
Meat Carts					
Fruit Shops					

Disinfection and Infectious Diseases—

Number of visits	...	...	...	...	155
Houses disinfected	...	...	...	...	48
Schools disinfected	...	...	...	...	2

Scavenging—

Ashpits inspected	...	...	...	...	1236
Ashpits emptied	...	...	...	...	3426
Pails emptied	...	...	...	...	2840
Dustbins emptied	...	...	...	...	4616
Loads removed	...	...	...	...	2262
Houses scavenged	...	...	...	...	11332

Water Supply—

Water certificates granted	68
Water samples taken (from wells)	...	...	...	5
Water samples taken (from rivers)	...	...	...	7

General—

Re-Inspections	...	...	...	...	1000
Pigsties inspected	...	...	...	...	157
Complaints	...	...	...	...	31
Privies converted to W.C's.	...	...	...	...	14
Privies converted to Pails	...	...	...	...	3
Overcrowding	...	...	...	...	Nil
Smoke nuisances	...	...	...	...	2
Notices served	...	...	...	...	134

River Pollution (Inspections)—

The Bollin	...	...	...	...	54
Timperley Brook	...	...	...	...	23
Sinderland Brook	...	...	...	...	9
Baguley Brook	...	...	...	...	7
Whim Brook	...	...	...	...	4

Anthrax (Visits)— 6

Tuberculous Cows (Visits)— 5

BUCKLOW RURAL DISTRICT.

Note.—The matter found on pages 3 to 5, and 8 to 18 inclusive, is to be considered an integral part of this Report.

Area.—This remains unchanged, and comprises 30 Townships, whose names and grouping will be found in Tables 23 and 24. The grouping in five Sub-Districts (see page 55, Annual Report 1903) instead of four as formerly, has an upsetting effect on Table 10, and it will be six years yet before this is got rid of; the figures resulting from the new arrangement can only begin with 1903. For previous years those of the new one are included in, and distributed among, three of the four pre-existing Sub-Districts.

Population.—See page 10. The estimate is 22,000 for 1907, an increase of 340 over 1906. Table 10 shows it according to Sub-Districts; and Table 24 according to Townships; (this last being the Census of 1901).

In this case I am relying on estimates made by the Surveyor of New Buildings.

Public Institutions.—These include the Manchester Consumption Hospital, actually in Dunham Massey; the Baguley Sanatorium and the temporary Small-pox Hospital, now also belonging to Manchester; the Cottage Homes at Styal; and the Epileptic Colony in Marthall; also 2 or 3 houses belonging to the Cheadle Royal Asylum. Some of these are now for the first time shown separately in Tables 11 and 12.

Tables.—The year 1896 now disappears, and 1906 comes in, in Tables 9 and 10. As a result the average of the birth-rates falls 0·2 to 22·2; that of the death-rates falls 0·2 to 12·9; that of the zymotic death-rates remains at 1·0; and that of the Infant Mortality Figures rises 2 to 111.

Births.—(Tables 9 and 15). The births registered are 207 males and 200 females, total 407; Rate 18·5. This is alike the lowest number and the lowest Rate in Table 9; the Rate being 3·7 below the decennial average. The Rates for the Sub-Districts are 20·4, 15·7, 17·0, 12·8, 23·3. The Rate for England and Wales is 26·3, and for Country Districts is 25·6. Bucklow is therefore 28 per cent. below this last.

Deaths.—(Tables 9, 10, 12, 13, and 18). The total number, after correction, is 248, and the Rate is 11·3. This is the lowest recorded (Table 9). The Rates for the Sub-Districts were 8·9,

14·0, 10·9, 10·6, 14·7. A Rate of 8·9, for the Altrincham Sub-District, is certainly phenomenal! The Rate for England and Wales is 15·0; for Country Districts 14·7; so that here Bucklow has an advantage of 23 per cent.

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus:—

	No. of deaths.		Actual Rate.
January	...	23	1'045
February	...	26	1'181
March	...	24	1'090
April	...	28	1'272
May	...	21	0'954
June	...	20	0'900
July	...	18	0'818
August	...	8	0'363
September	...	23	1'045
October	...	12	0'545
November	...	22	0'999
December	...	23	1'045
		<hr/> 248	<hr/> 11'266

These figures show a remarkable uniformity, with exceptionally good returns for August and October; largely due, no doubt, to the **entire absence** of "summer diarrhœa." The low general death-rate would seem to be largely due to the lowness of all the other Rates.

Corrections for deaths in Public Institutions are:—Exclusions, 3 in the Consumption Hospital, 3 in the Baguley Sanatorium, and 9 in the David Lewis Homes. Inclusions, 12 in the Workhouse, 5 in the Altrincham Hospital, 1 each in the Stockport Workhouse, Manchester Royal Infirmary, and a Manchester Nursing Home. Two deaths in the Cottage Homes at Styal are included; but in future years this Public Institution will be enumerated separately in the estimate of population, and its deaths excluded.

Last year I commented specially on the fact that Northenden had a death-rate of 20·8, contrasted with 12·0 for the whole District. This year (an exceptionally favourable one) the figures are 15·8 and 11·3; showing a smaller difference, but still to some extent confirming my suspicion that the Northenden death-rate is permanently high.

Infant Mortality.—The number of deaths of infants under one year is only 33, compared with 55 in 1906; so that even with a low number of births, the "figure" falls to 81, ($\frac{1000 \times 33}{407} = 81$), which is the lowest recorded except the 73 of 1902. Our average being 111, the figure is 30, (or 27 per cent.), below the average. The figure for England and Wales is 118; or, without the towns, 106; so that here Bucklow has an advantage of 24 per cent.

Comparative Position.—(Table 19). This is ascertained for the year 1906 to be 8th (out of 12 Rural Districts in the County). This is our average position.

Illegitimate Infants.—(Table 16). The number born in 1907 was only 9, or 2·2 per cent. of all births. Of these 2 died, or 22·2 per cent. of illegitimate births; whilst 31 deaths among 398 legitimate children form 7·8 per cent. only.

Mortality among Old People.—(Table 14). No less than 95 deaths occurred among persons over 65 years of age, or 38 per cent. of all deaths. This is a greater proportion than usual.

Uncertified Deaths.—There were 2; a sudden death from heart disease (F., 73 years) in High Legh; and a premature infant (M., 5 hours) in Rostherne. During the preceding 3 years there had been none at all; and even now there have only been 5 cases in 6 years.

Coroner's Inquests.—All particulars are given in Table 22. The total number is less than usual.

Notifications of Infectious Disease.—Tables 11, 20, and 23 give all particulars. The total is less than in any other year since 1898; and is 25 per cent. below the average. Diphtheria has declined to a minimum; scarlet fever is below the average; and of enteric fever there were only 4 cases.

Zymotic Diseases.—In the previous paragraph we have considered the diseases scheduled in the Notification Act. We turn now to a different list, viz.: that of the Registrar General. His list includes small-pox, measles, scarlatina, diphtheria, whooping-cough, fever, and diarrhœa. As three of these are not notifiable, we have no means of ascertaining or recording the number of cases that occur. The only figures which we can compare are those which enumerate the deaths registered from these diseases. Table 21 gives the zymotic mortality for 18 years. (Not corrected for alterations in area and population). The number of deaths in 1907 was 6, and the Rate 0·3. This is the lowest mortality, and best record, in the whole 18 years. It is to be noted that only 1 death occurred from the notifiable diseases, compared with 5 from those that are not notifiable. The Rate is made up as follows:—

Small-pox	...	...	...	...	...	—
Measles	...	...	...	...	...	0·045
Scarlatina	...	...	...	...	...	0·045
Diphtheria	...	...	...	...	...	—
Whooping-cough	...	...	...	...	...	0·091
Fever	...	...	...	...	...	—
Diarrhœa	...	...	...	...	...	0·091

The Rate for England and Wales is 1·26; or for Country Districts 0·91; so that here Bucklow has an advantage of no less than 70 per cent.

Small-pox.—Absent.

Vaccination.—Table 17. These figures include the Urban Districts within the Area of the Bucklow Union, as explained in detail in my Annual Report, 1901, page 24. I give the figures for the two half-years of 1906; then the totals for the ten years next preceding. In 1906, out of 1890 surviving children, 1757 are known to have been vaccinated; or 93·0 per cent.; whilst if cases medically postponed, and those removed and traced, be assumed to have been ultimately vaccinated in the same proportion, among the survivors, (an assumption to which I can see no logical objection), the percentage vaccinated, of the whole, is 96·3. The similar Rates for the whole 11 years, combined, are 93·4 and 97·0

I have no doubt these excellent results will be attained once again, viz.: for 1907; but after that, there is almost sure to come a decline, owing to recent legislation, which extends additional facilities to the “conscientious objector.”

Measles.—Several small localised outbreaks occurred; and various schools were closed for short periods. One death occurred in High Legh at the end of February.

Scarlet Fever.—1 death occurred in the Sanatorium in June; the child belonged to Northenden. 53 cases were notified, and 38 were sent to the Sanatorium. Table 23 gives the distribution of the cases by Townships; but as the numbers are so small, the largest being 9 (for Dunham Massey), it is clear that there was no epidemic; and it would be waste of time to go further into the matter.

Diphtheria.—The number of cases notified fell to 9, of which 3 were removed to Hospital. No deaths. This is the best year since 1900. The remarks in the preceding paragraph also apply here.

Enteric Fever.—Only 4 cases notified, of which 2 were removed to Hospital. No deaths.

Influenza.—9 deaths; Rate 0·4.

Diarrhœa.—In the Table for 1906, 9 deaths were classified as *Enteritis*, of which 8 should have been under *Diarrhœa*. The number of deaths from diarrhœa therefore should have been 11, and the total of zymotic deaths 19, and the Rate 0·9. These corrections are to be considered as made in the 1906 Tables.

In 1907 only 2 deaths were attributed to diarrhœa; and as these occurred in September and November, and no other cases

of zymotic or summer diarrhœa had occurred, it is probable that they were not of that particular nature.

Enteritis.—Only 2 deaths, one being a woman 35 years of age, the other a child of 18 months.

Tables 20 and 21 show the remarkable immunity of the Bucklow District from enteric fever, and diarrhœal diseases. For the last 18 years, the average notifications of enteric fever have only been 8; the deaths, 2; annually; and the diarrhœa deaths 8. Even these numbers would be reduced, if we could eliminate those belonging to the 3 Townships which were in the Rural District a part of the time, but are not now.

Puerperal Fever.—1 notification; no death.

Erysipelas.—5 notifications; no death.

Other Septic Diseases.—7 deaths; in connection with the following primary diseases: M., 5 years, appendicitis; M., 5 years, amputation of thigh; F., 12 years, arthritis; F., 27 years, fistula; F., 42 years, "abdominal abscess"; M., 41 years, perineal abscess; M., 49 years, cellulitis.

Phthisis.—13 deaths; 5 in Northenden, 4 in Timperley, 1 each in Ringway, Partington, Mere, and Plumbley. 10 males, 3 females. Ages from 26 to 74 years; average 40 years, (higher than usual); Rate 0·6.

Disinfection is always offered in the houses where deaths from phthisis have occurred, and is generally accepted.

(See also remarks under this head in Annual Report, 1906).

Other Tubercular Diseases.—6 deaths; 3 in Timperley, 1 each in Dunham Massey, Peover Inferior, and Northenden. 2 under 1 year, two between 1 and 2 years, 1 at 2 years, 1 at 20 years. 3 ascribed to meningitis, the remainder to abdominal sites. Rate 0·3.

Cancer.—14 deaths; Rate 0·6. (A welcome diminution from 1905 and 1906). 4 in Timperley, 3 in Northenden, 1 each in Dunham Massey, Ringway, Warburton, High Legh, Partington, Toft and Styal. 4 males, 10 females. Ages from 24 to 74 years, average 54 years. In 9 cases some part of the alimentary canal was affected; in 3 cases the breast; in 2 the larynx and thyroid gland respectively.

Respiratory Diseases.—55 deaths; Rate 2·5. This is above the average, which for the last 6 years is 40.

Alcoholism.—3 cases; all males; in Toft, Ollerton, and Mobberley.

Heart Diseases.—32 deaths; Rate 2·3. The average for the last 6 years is 28.

Accidents.—4 deaths. See "Coroner's Inquests."

Other Causes.—One death in every eleven evades the classification in Table 12; and has to be put down to “other causes.” It would be one out of every three, but for the last four headings, which I have added myself to the official list.

Anthrax.—An occasional case occurs, and is dealt with by the County Police. Cases occurring in human beings, (as also hydrophobia and glanders), are now ordered to be reported by the Medical Officer of Health to the Clerk to the County Council.

Isolation Hospitals.—Cases of enteric fever now go to Monsall Hospital; diphtheria and scarlet fever to Baguley Sanatorium. The death-rate among scarlet fever cases in the latter institution is only 0·7, which clearly demonstrates the value to the patient, over and above the value to the community. 43 cases were sent into Hospital, out of 72 notified, or 60 per cent. This is the highest proportion yet attained.

Since removal to Hospital was commenced in 1898, the numbers have been—

Year.	Notifications.	Removals.	Percentage.
1898	46	5	10
1899	106	16	15
1900	96	42	43
1901	158	50	31
1902	102	27	27
1903	97	57	59
1904	117	63	54
1905	108	43	40
1906	106	51	48
1907	72	43	60

Sewage Disposal.—The old outfall at Oldfield, which for very many years has served an area in Dunham Massey, lying roughly north-west of Bowdon and south-west of Altrincham, and contiguous with both, was discontinued on December 15th, when the sewer was connected to the new main out-fall sewer which has been so long in course of construction. This brings into use the new tanks and irrigation-land at Woodhouses; which have been ready and waiting for several years. The main sewer is also almost completed, less than 100 yards remaining to be laid. In consequence of the depth of the cutting, the presence of quick-sand, &c., the work is proving difficult up to the last. Still it is hoped to complete it by the middle of March; and then the house-drains can be connected in the Sinderland Road area, and a long-standing grievance will be remedied. The Timperley and Northenden outfalls are being worked in the usual manner, with small extensions and improvements from time to time.

In a Rural District like this, with so many Municipal and Urban neighbours, it is easy to see a village here, or a hamlet there, growing faster than the average; and it is not difficult to

foresee that further small sewage-works will probably be required before many more years have passed.

Factories and Workshops.—I have accompanied Mr. McKenzie from time to time in his journies of inspection. Full particulars are contained in his Report and Tables. The work has been systematically and thoroughly carried out.

Systematic Inspection.—Enough has been said in the preceding pages, and will be found in the following reports from Mr. McKenzie and Mr. Metcalfe, to render it hardly necessary to give the formal assurance asked for in the Local Government Board Memorandum. As I have said before, I do not know any District (of this kind) which is more thoroughly inspected, systematically and periodically, than this District.

Conclusion.—I have purposely omitted several subjects, in an effort to secure brevity. They are such as have been fully and frequently discussed in previous Reports; and many of them are dealt with in the following contributions from Mr. McKenzie and Mr. Metcalfe; to both of whom I have again to express my great indebtedness for their valuable assistance; and for whom I am pleased to publish their Reports in their own names respectively.

T. W. H. GARSTANG,

D.P.H. Vict.

February 11th, 1908.

Factory and Workshop Act, 1901.
Annual Report of Surveyor for 1907.

Inspections under the above Act have been carried out during 1907,

The register shows at the close of the year 32 Factories, 127 Workshops, and 131 Workplaces within the District.

174 Inspections were made during the year, and the following defects were found and notices served to remedy same :—

Want of Cleanliness 33.

Defective Floor Drainage 1.

There are only 2 Out-workers in the District, one works in Altrincham and the other in Manchester.

There are no underground Bakehouses within the District.

J. McD. McKENZIE.

Annual Report on Canal Boats.

During 1907 34 visits have been paid to the waterways within Council's area. 58 boats were examined, and 4 were found in an unsatisfactory condition, viz. :

Dirty Cabins, 2.

Non-Removal of Foul Bilge Water, 2.

Notices were served on the above as being infringements of the Canal Boats Acts, and in each case the counterfoil has been returned indicating that attention has been given, and the defect remedied.

The Boats were registered to carry 214 persons, but only 108 were in occupation. These were made up as follows :—
74 Men, 27 Women, and 7 Children.

Eleven of the boats were engaged in the manure traffic, and bilge water was regularly removed in compliance with Regulations.

No case of Infectious Disease has been reported or encountered during the year, and the general condition of the boats was found satisfactory.

J. McD. McKENZIE.

Annual Report of Building Plans Committee, 1907.

During the year 114 sets of Plans have been submitted to the Council for their approval, and 5 letters with respect to building matters have been received and dealt with.

Of the Plans submitted, approval was granted to 54 sets on their first appearance; 55 sets were returned for amendments and subsequently passed, whilst 5 sets have been returned and not again submitted.

The various buildings, of which Plans were approved, are as follows :—

Alterations and Additions	53
Cottages, Dwelling-houses, &c.	185
Churchyard Extension	1
Club House	1
Conversion of Old Buildings into Cottages	4
Drainage Plans	4
Factory	1
Farm Buildings	16
Garages	5
Hospital	1
Irishmen's House	2
Laundry	1
Road Widenings, &c.	1
Stables (other than Farm Buildings) ...	4
Temporary Buildings	2
Wheelwrights' Shops	2

The Committee has also during the year paid special visits to 5 cases for purpose of actually inspecting proposed sites.

J. McD. McKENZIE,

District Surveyor.

SURVEYOR'S ANNUAL REPORT.

During the year 24 Certificates of Completion were granted for 73 houses which are now occupied.

Footings for 79 new buildings have been examined, and found satisfactory, and 56 Connections to main sewers have been inspected and found in order.

All new drains throughout the District have been water tested, and the 130 sets thus inspected were found satisfactory.

Following Licenses have been granted by the Council during the year :—

Hackney Carriage Licenses	...	...	16
" " Driver's Licenses	...		14
" " Conductor's Licenses			3
Carbide of Calcium Storage Licenses	...		8

During the year one complaint was received on the 3rd October from the Mersey and Irwell Joint Committee with regard to the nature of effluent from Sewage Works at Northenden. With a view to meeting this defect the Council have decided to put down a new tank and 2 additional filter beds with an area of 270 square yards. With this increased accommodation, it is hoped, the difficulty that was experienced through the growth of the village, will be met with.

On the 15th December the existing system of sewers draining Oldfield was diverted into the new Outfall Sewer and New Works started working. It is hoped that within a few weeks the whole line will be laid, and the Broadheath portion of the township can then be properly drained into new system.

J. McD. McKENZIE,

District Surveyor.

SANITARY INSPECTOR'S REPORT.

I have much pleasure in submitting my Report of the work done in this department for the year ending December 31st, 1907.

Dairies and Cowsheds.—This work has been carried out on similar lines to previous years, except that special visits were made during the winter months, when the cows were lying in, to several of the farms, in order to see the conditions existing whilst milking was going on. Many of the farmers evidently carry on the business in a cleanly manner, whilst others, judging from the amount of dirt about, appeared to have little idea that cleanliness was desirable. These defaulters have been informed that uncleanness or other departures from regulations will not be tolerated, and in every case discovered in the future the Council will be asked to take proceedings against them.

With regard to the structural defects discovered, the usual notices were served and many improvements carried out. There were five new cowsheds built.

There were 516 premises on the Register at the beginning of the year and 513 at the close; the latter number was made up as follows:—Cow-keepers (not milk-sellers) 292; Purveyors of Milk and Cow-keepers, 215; Purveyors of Milk (not cow-keepers) 6. There was one application for registration during the year, and 1056 notices were served (which include the lime-washing notices sent out in May and October). As to structural alterations gradual improvement can be reported, but no improvement can be reported as to cleanliness until late on in the year. I purpose sending out a special circular letter to all milk-sellers dealing with general cleanliness of cowsheds, cows, milkers, and all milk-vessels used.

Tuberculous Cows.—Three cases were notified by the Medical Officer of Health, Manchester; one was in Mobberley, one in Northen Etchells, and one in Tabley Superior.

They were all slaughtered under the supervision of the Manchester Officials and myself, and the diseased carcasses disposed of, so that none could be used for food.

Food Inspection.—As will be seen by the Table many visits were made to shops where meat, fish, fruit, &c., was exposed for sale. There was one seizure of unsound meat at Mobberley and the owner proceeded against.

In one case at Northenden I was telegraphed for and requested to inspect an animal which had just been slaughtered,

and this was found to be badly affected with Tuberculosis, and the butcher had the whole of it destroyed. Other food examined was of good quality.

Slaughter-houses.—There are nine licensed slaughter-houses in the District. Several applications have been made for licenses since Urban Powers were granted by the Local Government Board to the whole of the District.

A special report will be made to the Council as soon as the Slaughter-house bye-laws are made applicable to the whole District. Two persons were proceeded against and fined for using premises without being licensed.

House to House Inspection.—This work has been continued, and 91 more houses were inspected. The usual steps were taken, where defects were discovered, to have the same put right. This brings the total number of houses inspected to about 390.

House Drainage.—Several houses have been re-drained, and in each case new fittings provided, and other structural alterations carried out. The water test has been applied to all drains before being passed.

Water Supply.—Water certificates were granted for 68 houses under the provisions of Section 6 of the Public Health Water Act, 1878. 64 houses were supplied from public mains, 2 from wells (water analysed), and 2 from rain water tanks.

Smoke Nuisance.—Several complaints were received during the year. One from Carrington, and the rest from Dunham Massey with regard to the chimney of St. Anne's Consumption Hospital. Both are under observation.

Rivers Pollution.—Many inspections were made of the rivers in the District (see Table), and seven samples of river water submitted for analysis.

These were found to be fairly satisfactory, the worst of the seven being from Timperley Brook a little below the Tannery.

Disinfection.—All houses and clothing where infectious diseases occurred were disinfected by "Konoform" or "Formalin," and the rooms afterwards stripped and limewashed. In some cases all clothing was removed for steam disinfection. Steam disinfection will be insisted upon in 1908.

Legal Proceedings.—Two persons were prosecuted during the year and convicted.

Thomas Davies, Mobberley. Fined ten shillings and costs for using premises as a slaughter-house without being licensed.

Henry Johnson Longden. Fined one shilling and costs for using premises as a slaughter-house without being licensed; and

sentenced to three months imprisonment for having diseased meat on his premises and intended for human food.

Scavenging and Removal of Refuse.—

Dunham Massey, Timperley, and Northenden.—The Scavenging in Northenden Township, during the first four months of the year was carried out by the Council's staff of workmen. The Council then decided that the work should be carried out by contract, and the Council's workmen should devote their time to the townships of Dunham Massey and Timperley.

The following is a return of the work done in each township during the year :—

		Dunham.	Timperley.	Northenden.
Houses scavenged	...	1809	4906	4617
Ashpits emptied	...	825	1286	1315
Dustbins emptied	...	364	2004	2248
Pails emptied	...	399	2053	388
Loads removed	...	684	864	714

173 loads of manure were sold from Dunham Massey and 282 from Timperley.

R. MOORE METCALFE.



Biddulph Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1907.

Population at Census, 1891, 5,290.

„ „ „ 1901, 6,247. Increase, 957.

Estimated Population in middle of 1907, 7,070.

Area of District in Acres (exclusive of area covered by water) $5,057-30=5,027$.

Number of Inhabited Houses, 1,260.	} At Census of
Average Number of Persons per House, 4·95.	
	1901.

Institutions within the District receiving sick and infirm persons from outside the District: The Isolation Hospital.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, at Leek. North Stafford Infirmary. Congleton Cottage Hospital.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Birth Rate per 1,000 living, 34·8.

Death Rate per 1,000 living, 13·0.

Death Rate from Seven Principal Zymotic Diseases, 0·3.

Deaths under one year in proportion to 1,000 Births, 97.

Each birth or death contributes to the Rate 0·14147.

TABLE 29.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1907 and Previous Years.

Name of District, BIDDULPH (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year.		At all Ages.					Number.	Rate.
		Number.	Rate.	Number.	Rate per 1000 Births registered.	Number.	Rate.					
1897	5863	173	29'5	18	104	73	...	...	...	2	80	13'6
1898	5959	199	33'4	28	140	79	...	...	...	1	80	13'4
1899	6055	210	34'6	29	138	109	...	...	...	...	110	18'1
1900	6141	206	33'5	34	165	113	...	...	...	1	114	18'5
1901	6247	245	39'2	22	90	85	...	...	...	5	89	14'2
1902	6367	226	35'5	34	150	117	...	...	...	3	119	18'7
1903	6440	225	34'9	22	98	83	...	5	..	5	89	13'8
1904	6525	215	33'0	32	149	98	...	2	...	2	99	15'2
1905	6656	240	36'0	29	121	99	...	1	...	4	103	15'5
1906	6860	235	34'3	39	166	102	...	...	...	2	104	15'1
Averages for years 1897-1906	6311	217	34'4	29	132	96	...	2	...	2'5	99	15'6
1907	7070	246	34'8	24	97	89	...	...	..	4	92	13'0

TABLE 30.—(Local Government Board Table III.)
Cases of Infectious Disease notified during the Year 1907.
Name of District, BIDDULPH (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							No. OF CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	
Small-pox ..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	17	..	8	..	3	1	..	
Erysipelas ..	1	..	..	..	1	..	..
Scarlet Fever ..	4	..	2	..	1	..	..
Typhus Fever ..	..	..	..	..	..	..	..
Enteric Fever ..	..	..	..	..	..	..	..
Relapsing Fever ..	..	..	..	..	..	..	..
Continued Fever ..	..	..	..	..	..	..	..
Puerperal Fever ..	..	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..
Totals ..	22	..	10	..	5	1	..	

TABLE 31.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1907.

Name of District, BIDDULPH (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
Small-pox	NIL.
Measles ... ..	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...
Whooping-cough ... ..	...	...	...	...	...	...	...
Diphtheria (including Mem- branous Croup)	2	...	1	1	...	...	...
Croup ... ..	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...
{ Enteric ... ..	...	...	...	...	...	...	...
{ Rheumatic	1	...	...	1	...	...	...
Epidemic Influenza ... ..	...	...	...	...	...	1	...
Cholera ... ..	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...
Diarrhoea ... ..	...	...	...	...	...	...	...
Enteritis ... ..	...	...	...	...	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...
Other Septic Diseases ... ..	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuber- culosis)	4	...	...	1	1	2	...
Other Tubercular Diseases	4	...	...	2	...	1	1
Cancer, Malignant Disease	5	...	...	...	...	1	4
Bronchitis	4	2	...	...	...	...	2
Pneumonia	15	6	1	...	1	1	6	
Pleurisy ... ..	...	...	...	...	...	...	...
Other Diseases of Respira- tory Organs	1	...	...	...	...	...	1
Alcoholism ... ..	...	...	...	...	...	...	...
Cirrhosis of Liver { ... ..	...	...	...	...	...	...	...
Venereal Diseases ... ..	...	...	...	...	...	...	...
Premature Birth	7	7	...	...	...	...	...
Diseases and Accidents of Parturition	3	...	...	...	1	2	...
Heart Diseases	7	...	...	1	1	4	1
Accidents	1	...	...	...	...	...	1
Suicides	2	...	...	...	...	2	...
Debility, &c.	4	4	...	...	...	...	...
Convulsions, &c.	3	3	...	...	...	...	...
Cerebral Diseases	11	1	...	...	1	5	4
Old Age	4	...	...	...	...	...	4
All other causes	13	1	...	1	1	7	3	
All causes	92	24	2	7	6	26	27	

TABLE 32.

(Local Government Board Table V.)

Infantile Mortality during the year 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Name of District, BIDDULPH (URBAN).

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified ...	6	2	1		9	1	3	1	2	1		1	1	2	2		23
	Uncertified ...							1										1
Common Infectious Diseases.	Small-pox ...																	
	Chicken-pox ...																	
	Measles ...																	
	Scarlet Fever ...																	
	Diphtheria : Croup																	
Diarrhoeal Diseases.	Whooping Cough																	
	Diarrhoea, all forms																	
	Enteritis, Muco-enteritis,																	
	Gastro-enteritis																	
	Gastritis, Gastro-intestinal Catarrh																	
Wasting Diseases.	Premature Birth ...	6	1			7												7
	Congenital Defects																	
	Injury at Birth ...																	
	Want of Breast-milk																	
	Atrophy, Debility, Marasmus		1	1		2	1	1										4
Tuberculous Diseases.	Tuberculous Meningitis																	
	Tuberculous Peritonitis																	
	Tabes Mesenterica																	
	Other Tuberculous Diseases																	
Other Causes.	Erysipelas																	
	Syphilis ...																	
	Rickets ...																	
	Meningitis (not Tuberculous)												1					1
	Convulsions							1								1		2
	Bronchitis							1			1							2
	Laryngitis																	
	Pneumonia							1	1	2					2			6
	Suffocation, overlaying																	
	Other Causes												1		1			2
		6	2	1		9	1	4	1	2	1		1	1	2	2		24

District of Biddulph.

Population estimated to middle of 1907 ... 7070.

Births in the year { legitimate ... 242 Deaths in the year { legitimate infants ... 24
 { illegitimate ... 4 { illegitimate infants ... 0

Deaths from all Causes at all ages, 92.

TABLE 33.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1907.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths.	Average.	1907.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1907.	Average.	1907.				
246	92	2	34.4	34.8	15.6	13.0	1.8	0.3	27	24	29	26

TABLE 34.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1907.

QUARTER ENDING.	Total Deaths.	Rate.	DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Diphtheria.	ZYMOTIC DEATHS.		Phthisis.
			At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.		Total.	Rate.	
March 31	33	18.9	9	10	27	30	2	2	1.1	1
June 30	21	11.9	7	5	33	24	—	—	—	2
Sept. 30	20	11.2	7	7	35	35	—	—	—	1
Dec. 31	18	10.2	4	2	22	11	—	—	—	—
Total	92	13.0	27	24	29	26	2	2	0.3	4

TABLE 35.

Births.

	M.	F.	Total.	Rate.	Of which Ille- gitimate.		
					M.	F.	Total.
1st Quarter	31	31	62	35·7	1	—	1
2nd „	38	40	78	44·2	2	1	3
3rd „	22	32	54	30·3	—	—	—
4th „	31	21	52	29·2	—	—	—
Total ...	122	124	246	34·8	3	1	4

TABLE 36.

Shewing position of Biddulph in the County in 1906, compared with 37 other Urban Districts.

STAFFORDSHIRE.	Best of 38 Urban Districts	Worst of 38 Urban Districts	Bid- dolph Figures.	Place of Bid- dolph in the List.
Birth Rate	42·7	20·7	34·2	13
Death Rate	10·8	23·3	15·1	17
Zymotic Death Rate	0·7	4·7	1·6	16
Infantile Mortality	85	234	166	28

TABLE 37.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	TOTAL.
1890	—	12	2	3	2	1	20
1891	—	5	1	5	2	2	15
1892	—	18	3	3	—	—	24
1893	—	11	2	—	2	—	15
1894	18	12	4	3	2	—	39
1895	—	13	9	1	—	2	25
1896	—	38	4	3	4	6	55
1897	—	11	1	—	5	—	17
1898	—	1	3	2	1	—	7
1899	—	110	—	5	3	—	118
1900	—	22	1	3	—	—	26
1901	—	—	15	2	3	1	21
1902	—	—	1	11	1	—	13
1903	—	5	23	—	—	—	28
1904	—	14	30	3	2	1	50
1905	—	11	17	—	1	1	30
1906	—	12	28	5	2	—	47
Total of 17 years.	18	295	144	49	30	14	550
Average of 17 years	1	17	8	3	2	1	32
1907	—	4	17	—	1	—	22

TABLE 38.

Deaths from Zymotic Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping- cough.	Diarrhœa.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	1	—	—	—	—	—	1	6	1	—
1891	—	—	—	—	1	11	1	13	8	2	—
1892	—	2	—	—	—	—	1	3	2	—	—
1893	—	1	2	—	4	—	7	14	6	2	—
1894	1	—	3	1	—	1	—	6	2	1	—
1895	—	—	4	1	2	5	7	19	6	2	—
1896	—	3	4	—	3	2	2	14	9	2	—
1897	—	—	1	—	—	4	2	7	9	—	—
1898	—	—	1	—	12	3	4	20	5	—	—
1899	—	4	—	1	—	5	9	19	6	1	2
1900	—	—	1	—	—	—	6	7	2	—	—
1901	—	—	1	—	—	—	3	4	3	—	—
1902	—	—	1	1	7	2	3	14	5	—	—
1903	—	—	7	—	—	—	—	7	5	—	—
1904	—	—	4	—	1	—	—	5	9	—	—
1905	—	—	1	—	3	3	4	11	6	—	—
1906	—	—	2	1	3	1	4	11	4	1	1
Total of 17 years	1	11	32	5	36	37	53	175	93	12	3
Average of 17 Years	—	0·6	1·9	0·3	2·1	2·2	3·1	10·3	5·5	0·7	0·2
1907	—	—	2	—	—	—	—	2	4	—	—

TABLE 39.

Vaccination.

		Total Births.	Vaccinated.	Died.	Removed to places known.	Postponed on Medical Certifi- cate.	Lost sight of.	Conscientious Objections.
1896	...	185	159	19	—	4	3	—
1897	...	181	161	14	—	5	1	—
1898	...	199	153	20	—	21	3	2
1899	...	215	145	25	4	40	1	—
1900	...	210	163	27	4	11	3	2
1901	...	245	218	19	3	4	—	1
1902	...	225	178	28	3	14	—	2
1903	...	225	178	18	3	23	3	1
1904	...	215	147	23	2	42	1	2
1905	...	240	202	19	1	15	—	3
Total for 10 years		2140	1704	212	20	179	15	13
1906	...	235	188	37	1	5	—	4

TABLE 40.

Annual Report of the Medical Officer of Health for the year 1907, for the Urban District of Biddulph, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.				Inspections.	Number of Written Notices.	Prosecutions.
Factories ...	...	...	...	12	2	...
(Including Factory Laundries.)						
Workshops ...	...	...	...	98	2	...
(Including Workshop Laundries.)						
Workplaces ...	...	...	...	...	...	...
				—	—	—
Total ...	...	...	...	110	4	...
				—	—	—

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ...	1	1	...	...
Want of Drainage of Floors	1	1	...	...
Sanitary Accommodations—				
Insufficient ...	...	...	...	...
Unsuitable or defective	2	2	...	...
Total ...	4	4	...	...

TABLE 41.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1907, in the Urban District of Biddulph.

				NUMBER OF		ABATEMENT NOTICES.		NUISANCES ABATED AFTER NOTICE BY	
				Inspections and Observations made.	Defects found.	Informal by Inspector.	Formal by Authority.	Inspector.	Authority.
Dwelling-Houses and Schools.	Foul Conditions ... ..	...	...	117	76	70	6	70	6
	Structural Defects ... ..	...	...	90	35	30	5	30	5
	Overcrowding ... ..	...	...	3	...	3	...	3	...
	Unfit for Habitation ... ..	...	...	...	...	...	...	...	...
	Lodging Houses ... ..	...	...	...	...	...	...	...	...
	Dairies and Milkshops ... ..	...	...	...	...	...	...	...	...
	Cowsheds ... ..	...	...	56	16	16	...	16	...
	Bakehouses... ..	...	...	9	Inspected Quarterly	...	...	...	...
	Slaughter-houses ... ..	...	...	3		...	...	...	...
	Canal Boats ... ..	...	...	...	...	...	...	...	...
House Drainage.	Ashpits and Privies ... ..	...	...	51	30	30	...	30	...
	Deposits of Refuse and Manure ... ..	...	...	24	4	4	...	4	...
	Water Closets ... ..	...	...	2	2	2	...	2	...
	Defective Traps ... ..	...	...	71	52	49	3	49	3
	No Disconnection .. ..	...	...				
	Other Faults ... ..	...	...	...	...	...	...	...	...
	Water Supply ... ..	...	...	5	5	...	5	...	5
	Pigsties ... ..	...	...	19	2	2	...	2	...
	Animals improperly kept ... ..	...	...	16	2	2	...	2	...
	Offensive Trades ... ..	...	...	...	...	...	...	...	...
	Smoke Nuisances ... ..	...	...	...	...	...	...	...	...
	Other Nuisances ... ..	...	...	...	...	...	...	...	...
TOTALS				466	224	210	19	210	19
<i>Precautions against Infectious Disease.</i>									Nos.
Lots of Infected Bedding Disinfected or Destroyed .. ..				...	...	...	...	...	8
Houses Disinfected after Infectious Disease ... ..				...	...	...	...	...	16
Schools Disinfected after Infectious Disease ... ..				...	...	...	...	...	2

S. GIBSON,

Inspector of Nuisances.

January 29th, 1908.

BIDDULPH URBAN DISTRICT.

Note.—The matter found on pages 3 to 5, and 8 to 18 inclusive, is to be read as a part of this Report.

Area.—Unchanged.

Particular Features.—There are no Public Institutions in the District, (save the temporary Isolation Hospital); no Canals; and no Common Lodging Houses.

Population.—(See para. on page 10). A steady increase has been estimated each year since the Census of 1901 gave 6247, (1891, 5290; difference 957.) Thus I arrived at 6860 for 1906; and I put it at 7070 for 1907, an increase of 660 in six years. There were actually 1429 inhabited houses on the rate-book in January, 1907, which (at 4.95 persons per house, the density in 1901), gives 7073. As there will be a slight normal increase between January and June, I consider myself to be safely on the side of non-exaggeration in adopting 7070.

Tables.—(See paragraph on page 9.) The average of the birth-rates rises from 34.2 to 34.4; that of the death-rates falls from 15.7 to 15.6; that of the zymotic death-rates falls from 1.9 to 1.8; whilst that of the infant mortality figures rises from 129 to 132.

The Rates for 1907 are all better than the averages; and (except the birth-rate) very markedly so. 1907 will rank as one of our best years.

All the other Tables are given, as usual, and form a complete statistical history of the year; and save much writing in this part of the Report.

Comparative Position.—In 1906, which is of course the last year reported on by the County Medical Officer of Health, Biddulph stood just midway (see Table 36) in the list of Urban Districts; which is rather lower than its average place, and certainly lower than it ought to be. It is mainly due to the high infantile mortality during that year, which was fully discussed on page 26 of my last year's volume. For 1907 I hope in due time to be able to announce a considerable improvement.

Births.—(Table 35). The number registered was 122 males and 124 females, total 246. This is the highest number recorded

(Table 29) and corresponds to the increase in population. The Rate, 34·8, has however been exceeded three times in the preceding 10 years. It exceeds by 8·5 the Rate for England and Wales for 1907, which was only 26·3.

Illegitimate Infants.—These numbered 4 ; or only 1·6 per cent. of all births ; which is one-half the average of the preceding five years. No deaths occurred among them ; the 24 deaths occurring among the 242 legitimate children being 9·9 per cent.

Deaths.—(Tables 29, 31, 32, and 34). The number registered was 89, none of which can be discarded, (according to official instructions) ; though 4 have to be added, which occurred in Public Institutions outside the District. This gives a total of 93, and a Rate of 13·1. If, however, I may be allowed to discard 2 deaths, both caused by accidents, which occurred within the District to men who *resided* in **neighbouring** Districts, then also I would include one similar death of a Biddulph child which occurred whilst away from home ; and I should get a net number of 92, and Rate 13·0.

The deaths include 37 males, and 55 females, an unusual disproportion.

The total is 5 below the average ; and the Rate is the lowest recorded in Table 29, and is 2·6 below the average ; and 2·0 below the Rate for England and Wales, for 1907.

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus :—

	No. of deaths.		Actual Rate.
January	...	13	1·83911
February	...	13	1·83911
March	...	7	0·99029
April	...	3	0·42441
May	...	8	1·13176
June	...	10	1·41470
July	...	8	1·13176
August	...	8	1·13176
September	...	4	0·56588
October	...	7	0·99029
November	...	5	0·70735
December	...	6	0·84882
		<hr/> 92	<hr/> 13·01524

Uncertified Deaths.—Two ; a child two months old, ascribed to convulsions ; and a man of 77 years, ascribed to old age and weak heart.

Coroner's Inquests.—Ten were held in the District, of which two were on cases of accidental death in persons resident **elsewhere**. The remainder were :—January 11th, M., 4 years, "heart failure caused by natural causes," (this I have registered as a death from *diphtheria*) ; January 27th, M., 10 months,

convulsions ; February 8th, F., 32 years, suicide by hanging whilst of unsound mind ; May 22nd, F., 80 years, pulmonary congestion (whilst bed-fast after an accident) ; June 3rd, M., 48 years, syncope, natural causes ; July 12th, M., 46 years, epileptic fit ; November 11th, F., 25 years, suicide by strangulation whilst of unsound mind ; December 1st, F., 42 years, heart failure.

Two other deaths also were subject to inquests held elsewhere.

Infantile Mortality.—Only 24 of the deaths were those of infants under one year ; which compared with 246 births is as 97 to 1000. This is the lowest number, save one, in the sixth column of Table 29 ; and is 35 below the average ; and is also 21 below the figure for England and Wales for 1907. Table 32 gives the details of age and causation ; and I ask you to read, as part of this paragraph, the general remarks made on pages 14 to 18.

Mortality among Old People.—27 deaths were those of persons in advanced age ; or 29 per cent. of all deaths.

Notifications of Infectious Disease.—(Tables 30 and 37). The total number only reaches 22, which is 10 below the average. Two cases (diphtheria) proved fatal. The “steadily increasing prevalence of diphtheria,” to which attention was drawn last year, is again in evidence ; there having been 17 cases in 1907, and 115 in the last 5 years, compared with 46 in the previous 13 years.

Isolation Hospital.—This has not been in use during 1907.

I have no information as to the progress of the scheme for a Joint Hospital near Congleton.

Deaths from Zymotic Diseases.—There were none at all, except 2 cases of diphtheria. This is only one-fifth of the average number (Table 38) ; and the Rate, 0·3, is only one-sixth of the average ; the Rate also for England and Wales for 1907 being 1·3. These figures are extremely gratifying.

Small-pox.—There was no small-pox in the County in either 1905 or 1906 ; and there has been none in Biddulph since 1894.

Vaccination.—(Table 39). In 1906, 188 children were vaccinated out of 198 surviving, or 95 per cent. ; whilst if cases medically postponed, and those removed and traced, were ultimately vaccinated in the same proportion, (which I see no reason to doubt), the percentage becomes nearly 98 ; and as the percentages for the last 11 years are 88 (or 97), no doubt this largely explains the District's immunity from Small-pox.

Unfortunately, from our point of view, a new Act facilitates the obtaining of exemptions ; and I cannot anticipate the

maintenance of the above high standard beyond the year 1907. As surely as the night follows the day, our successors will have to pay a terrible price, both in pocket and in lives, for this contemptuous flouting of scientific opinion and advice.

Measles.—No deaths. Not prevalent.

Scarlet Fever.—No deaths. Only 4 cases notified; in February, March, May, and October; in different parts of the District. We have had no epidemic for 8 years (Table 37); which is longer than the average interval in most Districts.

Whooping Cough.—No deaths. Not prevalent.

Diphtheria.—Two deaths occurred, among 17 cases notified. (Tables 37 and 38). This makes the number of cases 115 in the last five years; contrasted with only 46 in all the 13 years preceding; or 23 per year (average) against $3\frac{1}{2}$. The cases mainly occurred in the first half-year; and the deaths occurred in January and February. Only 3 of the cases occurred in the town of Bradley Green; the remainder were mostly at Biddulph Moor. No common cause was ascertained. In my last Report I wrote at some length on this subject; perhaps it is unnecessary to pursue it further on the present occasion.

Enteric Fever.—Absent.

Diarrhœa.—Not a single death attributed to this ailment; (similar good fortune in 1903 and 1904.) Table 38 shows that this District enjoys a remarkable freedom from these deaths; the average yearly number being only 3 in a period of 18 years.

Enteritis.—No deaths.

Puerperal Fever.—None.

Erysipelas.—Only 1 case.

Phthisis.—4 deaths. This is the average number; and the Rate is only 0.5. All the victims were females; ages 9, 20, 32, 62 years.

Other Tubercular Diseases.—4 deaths. 1 male, 3 females. Ages 5, 7, 43, 65 years. 2 peritonitis, 1 laryngeal, 1 general. Rate 0.5.

Cancer.—5 deaths. 1 male, 4 females. Ages 60, 66, 66, 71, 76 years. 1 uterine, 2 in digestive, and 2 in urinary organs.

Respiratory Diseases.—20 deaths. Rate 2.8. It will be noticed that 9 cases occurred in infants, (Table 31), 9 in old people, and only 2 in persons between 5 and 65 years. A similar remark was made last year.

Premature Births.—7 deaths. Refer to special article on "causes of infantile deaths" on pages 14 to 18 of this Volume.

Diseases and Accidents of Parturition.—3 deaths. One due to hæmorrhage, 2 to convulsions.

Accidents.—1 death. See “Coroner’s Inquests.”

Suicides.—Two. See “Coroner’s Inquests.”

Overcrowding.—This still exists, because the population increases faster than the supply of new cottages. No bad cases have come under my notice during 1907.

Excrement and Refuse Disposal.—57 Peat Pails have been added during the year, bringing up the total to just over 800. The scavenging is done by the Council’s staff. Peat-pails are supplied to nearly all new cottage property; and are also substituted for old cess-pools as opportunity offers. The system seems to suit this District remarkably well; and is not found too onerous or expensive.

Sewage Disposal.—It is with much satisfaction that I can at last report the end of our technical troubles. The approval of the Local Government Board has been given to the plans; and (since 1908 came in) sanction has also been given to the borrowing of £7,073 for the cost of the works. A good deal should be done this year.

Water Supply.—See Inspector’s Report.

Slaughter-houses. } Visited and inspected from time to time,
Bake-houses. }

Dairies, Cowsheds, and Milk-shops.—I continue to make inspections, from time to time, personally. A distinct general improvement has taken place since inspections began to be made; but of course there are still plenty of cases where further improvement is desirable, and is by no means difficult to carry out.

Factories and Workshops.—These have been visited in the course of systematic inspections. The list (given in detail in my 1905 Report) shows that the Act only applies to a very limited extent in this District.

The figures given in Table 40 represent the Inspector’s work. A certain number of additional inspections have been made by myself, but I have not the exact figures.

Systematic Inspections.—These are difficult to make, because of the scattered nature of the outlying population; and because of my residing at some distance. As regards Bradley Green, the principal centre, I think I may say that it receives a good share of systematic inspection; and as to the outlying parts, no summer passes without my spending one or more whole days in nothing else but this kind of work; of course accompanied

by the Inspector, without whose local knowledge I should waste much time.

During 1907 less has been done than in previous years ; owing to the satisfactory reports made to me by the Inspector.

Conclusion.—I have endeavoured to include everything that should be mentioned ; and yet to keep the Report as concise as possible.

I append the Inspector's Report separately.

T. W. H. GARSTANG,

D.P.H. Vict.

February 24th, 1908.



INSPECTOR'S REPORT.

I have pleasure in submitting my 9th Annual Report.

Infectious Diseases.—This year has been a particularly good one, the District having been singularly free from Infectious Disease.

In all cases where there may have been any infection, disinfectants have been freely distributed and careful instructions given.

Scavenging.—The work in this department continues year by year to grow, owing largely to the continually increasing population of the District—up to the present the work has been carried out in an efficient manner by the Council's workmen.

Early in the year statements were submitted to the Council as to the cost of scavenging in neighbouring and similar Districts, and it was found that this District compared very favourably with others, in fact, the cost in proportion to population was lower than in any other.

Inspections.—These of course continue to be made most regularly, and little difficulty is usually experienced in obtaining alterations and improvements where necessary—many small works are carried out in remedying defects without the necessity of bringing same to the notice of the Council.

Sewers and Drains.—New Sewers and Drains have been laid in different parts of the District, but more particularly where demanded by new Dwelling-houses.

It may be expected that the Storm Drain laid in Congleton Road will relieve the Main Sewer to such a degree that Flooding in times of Storm will not occur again.

Water Supply.—The water supply to the District during this year has been the best on record.

The increased supply at Biddulph Park has realised more than expectations, there being at all times a good surplus and consequent overflow at the reservoir—this in spite of a continuously increasing demand is very satisfactory.

It is confidently hoped that the Council will shortly obtain the sanction of the Local Government Board to the borrowing of £2,700 for purposes of taking out old and small water mains and reinstating with new and much larger ones, and when this work is completed, the Council may with assurance look forward

to several years at any rate in which the Water Supply to this District may be considered adequate.

Dairies and Cowsheds.—The Cowsheds in this District continue to improve—the Cowkeepers generally are getting educated to a higher standard of cleanliness and to the need of better conditions.

I am of opinion that the Cowsheds in this District, generally speaking, may be said to be quite up to the average, if not better.

Structural improvements are constantly being made, and in every Cowshed that I have inspected during this year, I have been pleased to find that the whitewashing notice has been observed.

Slaughter and Bake-houses.—These all being in the centre of the District, are constantly being visited, and are fairly satisfactory.

One old Bake-house has been done away with, and one new Bake-house has been erected.

Factories and Workshops.—These are regularly inspected, and where required, improvements have been made and defects remedied.

S. GIBSON,

Surveyor and Inspector.



Knutsford Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1907.

Population at Census, 1891, 4,663.

(4,266 exclusive of Workhouse and Gaol).

Population at Census, 1901, 5,172.

(4,686 exclusive of strangers in Public Institutions).

Increase, 420.

Estimated Population in middle of 1907, 6,179.

(5,310 exclusive of strangers).

Area of District in Acres (exclusive of area covered by water) $1,760 - 42 = 1,718$.

Number of Inhabited Houses, 966.

Average Number of Persons per House, 4.85. } At Census of 1901.

Institutions within the District receiving sick and infirm persons from outside the District: H.M. Prison. Union Workhouse.

Institutions outside the District receiving sick and infirm persons from the District: Hospital for Infectious Diseases at Baguley; Manchester Royal Infirmary, and other Hospitals.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Workhouse (Bucklow Union). Situated in this District.

Birth Rate per 1,000 living, 23.3.

Death Rate per 1,000 living, 11.7.

Death Rate from Seven Principal Zymotic Diseases, 0.9.

Deaths under one year in proportion to 1,000 Births, 97.

Each birth or death contributes to the Rate 0.18832.

TABLE 42.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1907 and Previous Years.

Name of District, KNUTSFORD (URBAN).

YEAR.	Population estimated to Middle of each Year.		BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
					Under 1 Year.		At all Ages.						
	Gross Population including Workhouse and Gaol.	Nett Population excluding Workhouse and Gaol.	Number.	Rate.	Number.	Rate per 1000 Births registered.	Number.	Rate.					
1897	5115	4518	140	31.0	24	171	103	...	32	26	...	77	17.0
1898	5148	4560	126	27.6	25	198	127	...	49	43	...	84	18.4
1899	5150	4602	103	22.4	14	136	133	...	57	50	...	84	18.2
1900	5148	4644	130	28.0	17	131	154	...	88	76	...	82	17.7
1901	5172	4686	124	26.4	14	113	131	...	68	61	...	70	14.9
1902	5306	4738	126	26.6	8	63	103	...	53	48	3	58	12.2
1903	5512	4780	137	28.7	21	153	126	...	70	63	1	71	14.8
1904	5639	4850	129	26.6	18	139	128	...	57	49	...	79	16.3
1905	5755	4900	117	23.8	12	103	123	...	65	55	...	66	13.5
1906	5825	4950	110	22.2	7	64	117	...	71	55	3	65	13.1
Averages for years 1897-1906	5377	4723	124	26.3	16	127	125	...	61	53	...	74	15.6
1907	6179	5310	124	23.3	12	97	99	..	46	39	2	62	11.7

TABLE 43.—(Local Government Board Table II.)

Vital Statistics of separate Localities in 1907 and previous Years.

Name of District, KNUTSFORD (URBAN).

NAMES OF LOCALITIES.	1.—URBAN DISTRICT.				2.—UNION WORKHOUSE.				3.—H.M. PRISON.				4—TOTALS.			
	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1897	4518	140	71	24	229	9	6	..	368	2	..	..	5115	151	77	24
1898	4560	125	78	25	247	7	6	..	341	..	..	..	5148	132	84	25
1899	4602	95	77	14	270	9	7	..	278	3	..	..	5150	107	84	14
1900	4644	130	70	17	274	7	12	..	230	2	..	..	5148	139	82	17
1901	4622	124	63	13	288	6	7	1	262	2	..	..	5172	132	70	14
1902	4660	126	53	8	280	10	5	..	366	1	..	..	5306	137	58	8
1903	4746	137	64	21	318	8	7	..	448	..	..	..	5512	145	71	21
1904	4816	127	71	17	353	15	8	1	470	..	..	..	5639	142	79	18
1905	4867	117	56	12	360	11	10	..	528	..	..	..	5755	124	66	12
1906	4913	108	50	6	371	14	15	1	541	..	..	..	5825	122	65	7
Averages of years 1897 to 1906.	4695	123	65	16	299	10	8	..	383	..	..	..	5377	133	74	16
1907	5273	122	55	12	381	13	7	..	525	..	..	..	6179	135	62	12

TABLE 44.—(Local Government Board Table III.)

Cases of Infectious Disease notified during the Year 1907.

Name of District, KNUTSFORD (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.			NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.			
	At Ages—Years.							TOWN.	WORK-HOUSE.	GAOL.	TOWN.	WORK-HOUSE.	GAOL.	Total Cases Removed to Hospital.
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.							
Small-pox ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	4	..	..	2	1	1	..	4	..	..	..	..	..	..
Erysipelas ...	1	..	..	..	..	..	1	1	..	..	..	..	..	..
Scarlet Fever ...	52	..	19	29	2	2	..	47	5	..	39	5	..	44
Typhus Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ...	6	..	..	2	1	3	..	5	1	..	2	..	..	2
Relapsing Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	1	..	..	..	..	1	..	1	..	..	..	..	..	..
Plague ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ...	64	..	19	33	4	7	1	58	6	..	41	5	..	46

TABLE 45.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1907.

Name of District, KNUTSFORD (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Re- sidents" belonging to Lo- calities, whether occurring in or beyond the District.			Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	TOWN.	WORK- HOUSE.	GAOL.	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...
Measles	1	...	1	...	...	...	...	1	...	...	...
Scarlet Fever	1	...	1	...	...	...	...	1	...	...	...
Whooping-cough... ..	2	2	...	...	...	...	...	2	...	...	...
Diphtheria (including Mem- branous Croup) ... ..	...	...	...	...	...	...	...	...	...	...	...
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...
{ Enteric	1	...	...	...	...	1	...	1	...	...	...
{ Other Continued	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ... ..	...	...	...	...	...	...	...	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea ... ..	...	...	...	...	...	...	...	...	...	...	...
Enteritis	1	...	...	1	...	...	...	1	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...
Phthisis	3	...	...	...	...	3	...	3	...	...	4
Other Tubercular Diseases	4	...	3	...	...	1	...	4	...	...	...
Cancer, Malignant Disease	6	...	...	...	...	5	1	6	...	...	...
Bronchitis	6	4	...	...	...	1	1	6	...	...	3
Pneumonia	5	...	2	...	...	3	...	4	1	...	2
Pleurisy ... ..	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respira- tory Organs	2	...	...	...	...	...	2	2	...	...	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver {	2	...	...	...	...	1	1	1	1	...	1
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...
Premature Birth ... ..	...	...	...	...	...	...	...	...	...	...	...
Diseases and Accidents of Parturition ... ..	...	...	...	...	...	...	...	...	...	...	2
Heart Diseases	6	...	...	...	...	3	3	6	...	...	4
Accidents	1	...	1	...	...	...	...	1	...	...	1
Suicides	1	...	...	...	...	1	...	1	...	...	...
Debility, &c.	1	1	...	...	...	...	...	1	...	...	1
Convulsions, &c.	5	5	...	...	...	...	...	5	...	...	...
Cerebral Diseases... ..	4	...	...	...	...	3	1	4	...	...	10
Old Age	9	...	...	...	...	...	9	4	5	...	19
All other causes	1	...	...	...	...	1	...	1	...	...	2
All causes	62	12	8	1	...	23	18	55	7	...	49

TABLE 46.

(Local Government Board Table V.)

Infantile Mortality during the year 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Name of District, KNUTSFORD (URBAN).

CAUSE OF DEATH.				Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified ...	...	..	1	...	2	1	4	4	1	1	...	...	1	...	...	...	...	1	12
	Uncertified	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases.	Small-pox	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria : Croup	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoeal Diseases.	Whooping Cough	...	..	..	..	..	..	..	..	1	...	...	...	..	..	..	..	1	2	..
	Diarrhoea, all forms	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Enteritis, Muco-enteritis, } Gastro-enteritis }	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Gastritis, Gastro-intestinal Catarrh }	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Premature Birth	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wasting Diseases.	Congenital Defects	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Injury at Birth	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast-milk	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Atrophy, Debility, Marasmus }	...	..	..	..	..	..	..	1	...	...	...	...	..	..	..	..	..	1	..
	Tuberculous Meningitis	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculous Diseases.	Tuberculous Peritonitis : } Tabes Mesenterica }	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases }	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Erysipelas	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rickets	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes.	Meningitis (not Tuberculous) }	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Convulsions	...	..	1	...	1	1	3	2	..	..	..	..	..	..	..	..	..	5	..
	Bronchitis	...	..	..	..	1	...	1	1	1	...	..	..	1	..	..	..	..	4	..
	Laryngitis	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Suffocation, overlaying	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
				1	...	2	1	4	4	1	1	...	...	1	...	...	...	...	1	12

District of Knutsford.

Population estimated to middle of 1907 . . 5310.

Births in the year { legitimate ... 117 Deaths in the year { legitimate infants ... 11
 { illegitimate ... 7 { illegitimate infants ... 1

Deaths from all Causes at all ages, 62.

TABLE 47.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1907.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths.	Zymotic Deaths.	Average.	1907.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1907.	Average.	1907.				
124	62	5	26·3	23·3	15·6	11·7	1·3	0·9	18	12	29	19

TABLE 48.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1907.

QUARTER ENDING.	Total Deaths.	Rate.	DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Measles.	Scarlet Fever.	Enteric Fever.	Whooping Cough.	ZYMOTIC DEATHS.		Phthisis.
			At 65 Years and up- wards.	Under One Year.	At 65 Years and up- wards.	Under One Year.					Total.	Rate.	
March 31	19	14.5	8	2	42	10	0	1	1	0	2	1.5	0
June 30	18	13.6	4	2	22	11	0	0	0	0	0	0.0	1
Sept. 30	13	9.7	4	4	31	31	1	0	0	2	3	2.2	0
Dec. 31	12	8.9	2	4	17	33	0	0	0	0	0	0.0	2
Total	62	11.7	18	12	29	19	1	1	1	2	5	0.9	3

TABLE 49.

Births.

		M.	F.	Total.	Rate.	Of which Illegit.			Additional in Workhouse & Gaol.					
									Illegit.					
						M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1st Quarter	...	20	15	35	26·7	2	1	3	0	2	2	0	2	2
2nd	„	15	17	32	24·2	0	0	0	1	1	2	1	1	2
3rd	„	15	13	28	20·9	0	1	1	0	0	0	0	0	0
4th	„	15	14	29	21·7	1	2	3	3	4	7	3	4	7
		65	59	124	23·3	3	4	7	4	7	11	4	7	11

TABLE 50.

Shewing position of Knutsford in the County in 1906, compared with 35 other Urban Districts.

	Best of 36 Urban Districts	Worst of 36 Urban Districts	Knuts- ford Figures.	Place of Knuts- ford the List.
Birth Rate	36·2	17·0	22·2	23
Death Rate	4·9	21·5	13·1	18
Zymotic Death Rate	0·0	3·7	1·8	29
Infantile Mortality	17	277	64	7

TABLE 51.

Notifications of Infectious Diseases.

(No records prior to 1895).

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	TOTAL.
1895	—	17	—	1	—	3	21
1896	—	5	—	—	—	6	11
1897	—	2	—	—	—	1	3
1898	—	—	1	2	—	2	5
1899	—	62	—	3	1	2	68
1900	—	3	7	2	1	1	14
1901	—	7	5	2	—	1	15
1902	—	2	3	—	1	2	8
1903	4	7	6	1	1	6	25
1904	2	2	7	1	2	3	17
1905	—	2	4	2	2	4	14
1906	—	40	4	8	—	5	57
Total of 12 years.	6	149	37	22	8	36	258
Average of 12 years.	0·5	12	3	2	0·7	3	21·5
1907	—	52	4	6	1	1	64

TABLE 52.

Deaths from Infectious Diseases.

Year.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Enteric Fever.	Diarrhoea.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	—	—	—	—	—	—	—	7	No Records	
1891	—	1	—	—	—	—	1	2	4		
1892	—	6	1	—	3	—	—	10	2		
1893	—	—	2	—	—	—	1	3	3		
1894	—	—	—	—	—	—	—	—	4		
1895	—	—	—	—	—	2	—	2	4		—
1896	—	—	—	—	3	—	3	6	—		—
1897	—	1	—	—	—	—	8	9	1		—
1898	—	—	—	—	—	—	10	10	6		—
1899	—	—	—	—	2	1	1	4	4		1
1900	—	—	—	2	—	2	3	7	4	1	—
1901	—	—	—	2	2	—	3	7	2	—	—
1902	—	3	—	—	—	—	—	3	5	1	—
1903	—	—	—	1	2	—	3	6	2	—	—
1904	1	—	—	—	1	1	2	5	3	1	—
1905	—	—	—	—	3	—	1	4	3	1	—
1906	—	5	1	—	—	2	1	9	2	—	1
Total of 17 years	1	16	4	5	16	8	37	87	56	6	1
Average of 17 Years	—	1	0·2	0·3	1	0·5	2	5	3·3	0·4	—
1907	—	1	1	—	2	1	—	5	3	—	—

TABLE 53.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1907, in the Urban District of Knutsford.

				Inspections and Observations made.	Formal Notices by Authority.	Nuisances Abated after Notice.
Dwelling- Houses and Schools.	{	Foul Conditions ..	...	Many	6	6
		Structural Defects ...	...	Many	6	6
		Overcrowding ...	...	Several	...	One abated
		Unfit for Habitation ...	...	...	...	...
		Lodging Houses ...	...	...	...	...
		Dairies and Milkshops ...	...	...	...	...
		Cowsheds ...	...	10	...	...
		Bakehouses...	...	Several	...	...
		Slaughter-houses ...	...	Several	All Clean	..
		Canal Boats ...	...	..	...	...
House Drainage.	{	Ashpits and Privies ...	...	Numerous	6	6
		Deposits of Refuse and Manure ...	...	360	...	...
		Water Closets ...	...	...	...	...
		Defective Traps ...	...	...	...	...
		No Disconnection ..	...	...	...	...
		Other Faults ...	...	...	...	...
		Water Supply ...	...	2	...	...
		Pigsties ..	...	Numerous	...	Several abated
		Animals improperly kept ...	...	...	...	...
		Offensive Trades ..	...	...	...	...
		Smoke Nuisances ...	...	1	1	1
		Other Nuisances ...	...	...	...	...
TOTALS ..				...	...	...

						Nos.
<i>Precautions against Infectious Disease.</i>						
Lots of Infected Bedding Disinfected or Destroyed ..						} All
Houses Disinfected after Infectious Disease ...						
Schools Disinfected after Infectious Disease ...						3
Prosecutions for Exposure of Infected Persons or things						1
Convictions ditto ditto						1

WALTER J. DOWNES,

February 7th, 1908.

Inspector of Nuisances.

TABLE 54.

Annual Report of the Medical Officer of Health for the year 1907, for the Urban District of Knutsford, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.			Inspections.	Number of Written Notices.	Prosecutions.
Factories ...	...	...	several	1	...
(Including Factory Laundries.)					
Workshops ...	...	...	many	1	...
(Including Workshop Laundries.)					
Workplaces ...	...	...	20	12	...
<hr/>					
Total ...	...	...	..	...	...
<hr/>					

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ...	1	1	1	...
Breach of special sanitary requirements for bake-houses ...	} All very Clean			
... ..				

4.—REGISTERED WORKSHOPS.

Class.					Number.
Nine Bakehouses ...	...	...	...	...	...105
<hr/>					
Total ...	...	...	...	...	...105
<hr/>					

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories :—

Notified by H.M. Inspector...	1
-------------------------------	-----	-----	-----	-----	---

KNUTSFORD URBAN DISTRICT.

Note.—The matter printed on pages 3 to 5, and 8 to 18 inclusive, is to be considered a part of this Report.

Area.—Unchanged.

Population.—I have again to thank the Governor of the Gaol and the Master of the Workhouse for their courtesy in supplying information as to the number of inmates in those Public Institutions. I am thus enabled to give as the “estimate” for each year the number which was the exact “daily average.”

After careful consideration I have come to the conclusion that the population of the District, exclusive of Public Institutions, has been under-estimated. (This will have a beneficial effect on the Rates, when corrections are made after the next Census). It was 4266 in 1891, and 4686 in 1901; an increase of 420 only. I estimated it as 4950 for 1906. Early in 1907 I ascertained that there were 1085 inhabited houses, besides 47 empty; and that at least 10 more houses then under construction would be occupied by mid-summer; and 1095 houses with an average population of 4.85 persons, gives a population of 5310. I do not feel justified in adopting any lower estimate than this; although it is an increase of 624 in 6 years, which shows more than twice the rate of increase that prevailed in the previous inter-censal period.

The Gaol contained an average of 525 prisoners; and the Workhouse an average of 360 paupers and 21 officers. The officers and 16 paupers are reckoned as belonging to the District; the remaining 344 paupers are the “foreign” population of the Workhouse. The total population is therefore 5310 + 525 + 344 or 6179. This figure will be found in Table 42 along with 5310; whilst in Table 43 the latter is replaced by 5273, and the Workhouse figure is correspondingly increased to 381. This explains the apparent discrepancy between Tables 42 and 43.

I am afraid it is a somewhat complicated calculation; but I do not know how to simplify it, without sacrificing accuracy.

In the two Public Institutions very few births are recorded, but an unusually large number of deaths. I am careful to forward information to the Medical Officers of Health for the Districts concerned. The instructions of the Local Government Board, as to the preparation of the official Tables, are thus not only fulfilled, but even bettered.

Average Rates.—For 1907 the average birth-rate drops from 26.8 to 26.3; the average death-rate from 16.0 to 15.6; the average zymotic death-rate rises from 1.2 to 1.3, and the average infant mortality figure falls from 137 to 127. (See Table 42).

Tables.—In Table 43 the births registered are gross numbers ; but the deaths are those belonging to Knutsford only. Deaths of strangers will be enumerated in a later paragraph.

Tables 42 to 54 give the statistical record for the District for 1907, and form the basis of the Report.

In fact, many features are better appreciated in tabular form, than in ordinary writing ; and I always consider that the careful preparation of the Tables relieves the body of the Report considerably.

Births.—(Table 49). The births registered were 135, of which 11, occurring in the Workhouse, do not belong to Knutsford at all. 124 births give a Rate of 23·3 ; which is the lowest but two in Table 42 ; and 3 below the average. The Rate for England and Wales for 1907 was 26·3.

Deaths.—The total number registered was 53 in the District, 48 in the Workhouse, and 1 in the Gaol ; total 102. Of these, 7 in the Workhouse belonged to Knutsford ; also 2 occurred in Hospitals outside the District ; which gives a total of 62 deaths belonging to Knutsford ; and this in turn gives a death-rate of 11·7. This is the lowest Rate in Table 42 ; (this is partly due to the increased population estimated) ; and is 3·9 below the average. The Rate for England and Wales for 1907 was 15·0.

The seasonal distribution of the deaths, and the building up of the Rate, are shown thus :—

	No. of deaths.		Actual Rate.
January	3	...	0·56496
February	6	...	1·12992
March	10	...	1·88320
April	8	...	1·50656
May	7	...	1·31824
June	3	...	0·56496
July	3	...	0·56496
August	3	...	0·56496
September	7	...	1·31824
October	1	...	0·18832
November	7	...	1·31824
December	4	...	0·75328
	62		11·67584

Uncertified Deaths.—None. (None since 1900).

Coroner's Inquests.—One was held in the Gaol, and two in the Workhouse ; which do not concern this District. 3 were held in the District, viz.: April 29th, M., 43 years, suicide (cut throat), temporarily insane. May 29th, M., 2 years, convulsions, following scalds. May 28th, F., 2 years, pneumonia, want of medical attention.

Infantile Mortality.—12 deaths occurred in children under 1 year of age ; which is in the same proportion to 124 births, as 97 to 1000. This is 30 below the average (Table 42), and has only twice been bettered.

The average of the five years 1897-1901 was 150; that of the five years 1902-1906 was 104.

The figure for England and Wales for 1907 is 118.

Comparative Position.—(Table 50). For the year 1906 Knutsford was, according to a "paper" valuation of the various Rates, about 19th out of 36 Urban Districts in the County.

Illegitimate Infants.—(Table 49). There were 7 illegitimate births among 124, or 5·6 per cent., compared with 9, 6, 6, 8, and 5 per cent. in the 5 years preceding. One died, out of 7, or 14 per cent.; whilst 11 died out of 117 legitimate children, or 9·4 per cent.

Mortality among Old People.—18 deaths; or 29 per cent. of all deaths; compared with 32, 35, 27, 34, 36, 29, per cent. in the six years preceding; an average of 32 per cent. through seven years.

Notifications of Infectious Diseases.—(Tables 44 and 51). 64 notifications were received; a number which has only once been exceeded (68 in 1899); and which together with the 57 of 1906 makes a much larger total than is shown by any other two consecutive years. The yearly average is only 21·5. The 1907 total (as in 1899 and 1906) is almost entirely due to scarlet fever. 5 cases of scarlet fever and 1 of enteric fever occurred in the Workhouse; the rest in the town. 1 case of scarlet fever and 1 case of enteric fever proved fatal. (N.B.—The latter was not among the notifications).

Hospital Isolation.—44 cases of scarlet fever were removed to the Baguley Sanatorium, and 2 cases of enteric fever to Monsall Hospital; all these recovered. The removals were thus 69 per cent. of the cases; against 54 per cent. in 1906.

Deaths from Zymotic Diseases.—(Tables 45 and 52). Measles 1, scarlet fever 1, whooping-cough 2, enteric fever 1; total 5; Rate 0·9. The number is just the average; the Rate (owing to increase of population) is below the average.

Small-pox.—Absent.

Vaccination.—The Urban District forms, by population, nearly two-thirds of the Knutsford Registration Sub-District of the Bucklow Union. For this combined area the vaccination returns for eleven years, 1896-1906, are given in the preceding Report for the Bucklow Rural District; to which reference should be made. From this it appears that in 1906 (not 1907), 188 children were vaccinated, out of 199 surviving; 1 being insusceptible, and 2 being lost sight of. The percentage is over 94; and maintains the good repute of the District.

The year 1907 will no doubt in due course show similar figures; but after that I much fear that a serious falling off will be apparent; due to the extended facilities now offered by the latest Act of Parliament to so-called conscientious objectors.

The final result will be disaster ; such as my generation has not seen ; but apparently nothing less will suffice.

Measles.—One death occurred in July. Otherwise little is known.

Scarlet Fever.—52 cases were notified ; viz.: January, 2 ; February, 6 ; March, 8 ; April, 15 ; May, 7 ; June, 1 ; July, 2 ; August, 1 ; September, 1 ; October, 3 ; November, 3 ; December, 3. This series is a continuation of the 40 cases of 1906 ; and together they form the largest epidemic of which I have any record (in Knutsford). 44 were removed to Hospital. Only 1 death occurred ; in February ; this was one of the cases not removed. The type of the disease was extremely mild ; and it is very probable that other cases occurred unrecognised. I am hoping that the epidemic has now worn itself out.

Whooping-cough.—One death occurred in July, and one in September. Between these dates an epidemic existed, according to “the man in the street” ; though the Inspector was never able to supply me with any official information.

Diphtheria.—Only 4 cases were notified ; 2 in February, 1 in March, and 1 in June. 1 was removed to Hospital ; this case appears among the scarlet fever removals. All recovered. The patients were 21, 28, 11, and 13 years of age. No connection between them could be traced ; nor any cause ascertained.

Enteric Fever.—6 cases were notified ; and following upon 8 in 1906, this constitutes the greatest prevalence of this disease, of which I have any record (in Knutsford). One case occurred in August, one in September, and one in October. These were not connected, and no cause was found. Each presented abnormal symptoms ; and I should have doubted the true nature of the disease, but for the fact that in each case bacteriological confirmation was obtained. Afterwards, in November, 4 cases occurred, (only 3 notified), 3 in a single small court, and one across the street. A man was first taken ill ; and, after he had been ill some three weeks or more, he and his family were removed to the Workhouse, as they would otherwise have died of starvation. The man died, immediately after removal, apparently from pneumonia and exhaustion. His wife then developed well-marked typhoid ; and was too ill to be removed, but ultimately recovered. A few days before these events a case had occurred across the street, and a few days afterwards another case occurred in the same court, and there is every reason to believe that these arose from the same first case. A privy in common use, no disinfection of excreta, and careless or dirty tenants ; the evidence is sufficient. The two last cases were removed to Hospital, and recovered.*

*In January, 1908, another case occurred in the same house as the last named ; was removed to Hospital, and died.

The original source of the disease, in the first patient, could never be even guessed at, as it was too late to make enquiries when the man was dead, after 3 (or more) weeks' illness. The only wonder is that there were not a great many more cases.

Diarrhoea.—Not a single death, (and only one in 1906), a remarkable record.

Puerperal Fever.—One case notified in October, (in the practice of a midwife); recovered.

Erysipelas.—One case notified in November; recovered.

Other Septic Diseases.—None.

Phthisis.—3 deaths occurred; which is the average number. 1 male, 2 females. Ages, 29, 41, 52 years. Rate 0·6.

Other Tubercular Diseases.—4 deaths. M., 38 years, meningitis; M., 19 months, pneumonia; F., 4 years, general tuberculosis; and F., 16 months, meningitis.

Cancer.—6 deaths. Rate 1·1. 3 males, 3 females. Ages, 47, 56, 60, 62, 64, 66 years. Digestive tract affected in five cases; shoulder-blade in one.

Respiratory Diseases.—13 deaths. Rate 2·5.

Alcoholism.—2 deaths; both males; at 59 and 67 years.

Heart Diseases.—6 deaths. Rate 1·1.

Accidents. } See under "Coroner's Inquests."

Suicides. }

Systematic Inspection.—The District is so small, and so intimately known to the Inspector, that it receives attention every day. Having lived in it 15 years (up to 1900) I also know it well; and I make upwards of 50 visits each year.

With regard to the "systematic" inspection contemplated by the Local Government Board, I am largely in the hands of the Inspector. It would seem very "fussy" to insist on dragging him round with me when he assures me that he knows of nothing which requires inspection; and yet it is little use going by myself. I can only report therefore for 1907 that not much has been actually done.

Cemetery.—The number of burials, to the end of 1907, was 407; covering a period of 6 years.

Factories and Workshops.—There are now 105 on the list; viz.: 5 factories, 9 bakehouses, and the remainder workshops of no size or importance. There are no underground bakehouses. There are no Home Workers. Numerous inspections have been made; a few defects found; 14 notices; no prosecutions; one matter referred to H.M. Inspector.

Inspector's Department.—Tables 53 and 54 have been prepared by the Inspector; but he has not, this year, supplied me with any written Report. As I pointed out last year in the case of Middlewich, it is a matter at his own discretion, as there are no official instructions requiring him to do so.

T. W. H. GARSTANG,

February 27th, 1908.

D.P.H. Vict.

Middlewich Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1907.

Population at Census, 1891, 4,001.

Population at Census, 1901, 4,669.

Increase, 668.

Estimated Population in middle of 1907, 4,950.

Area of District in Acres (exclusive of area covered by water) 1,095.

Number of Inhabited Houses, 1,005.	} At Census of
Average Number of Persons per House, 4·7.	
	1901.

Institutions within the District receiving sick and infirm persons from outside the District: None.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, Northwich. Albert Infirmary, Winsford. Infectious Diseases' Hospital at Davenham.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Birth Rate per 1,000 living, 28·9.

Death Rate per 1,000 living, 15·9.

Death Rate from Seven Principal Zymotic Diseases, 1·4.

Deaths under one year in proportion to 1,000 Births, 98.

Hospital: Davenham.

Workhouse: Situated in Northwich.

Each birth or death contributes to the Rate 0·20202.

TABLE 55.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1907 and Previous Years.

Name of District, MIDDLEWICH (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.	
				Under 1 Year.		At all Ages.						
		Number.	Rate.	Number.	Kate per 1000 Births registered.	Number.	Rate.				Number.	Rate.
1897	4403	176	40.0	32	182	73	...	No Public Institutions.		1	74	16.8
1898	4470	163	36.4	26	159	71	...			4	73	16.1
1899	4537	161	35.5	34	168	84	...			2	80	17.6
1900	4604	162	35.1	21	140	64	...			1	62	13.5
1901	4669	147	31.5	26	177	67	...			...	68	14.6
1902	4753	179	37.7	26	145	87	...			2	87	18.3
1903	4800	176	36.7	24	136	83	...			4	87	18.1
1904	4850	150	30.9	30	200	91	...	...	...	7	98	20.2
1905	4850	167	34.4	20	120	77	...	...	...	4	78	16.1
1906	4850	163	33.6	21	129	57	...	..	...	8	65	13.4
Averages for years 1897-1906	4679	164	35.2	26	156	75	...	...	...	3	77	16.5
1907	4950	143	28.9	14	98	70	..	...	...	9	79	15.9

TABLE 56.—(Local Government Board Table III.)
Cases of Infectious Disease notified during the Year 1907.
Name of District, MIDDLEWICH (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							No. OF CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.					65 and upwards.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.		
Small-pox ...	..	..	..	..	..	..	..	..
Cholera ...	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	37	..	6	12	11	8	..	..
Erysipelas ...	8	..	1	..	3	3	1	25
Scarlet Fever ...	10	..	3	6	1	..	..	5
Typhus Fever ...	..	..	..	..	..	..	..	..
Enteric Fever ...	..	..	..	..	..	..	..	..
Relapsing Fever ...	..	..	..	..	..	..	..	..
Continued Fever ...	..	..	..	..	..	..	..	..
Puerperal Fever ...	1	..	..	..	..	1	..	..
Plague ...	..	..	..	..	..	..	..	..
Totals ...	56	..	10	18	15	12	1	30

TABLE 57.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1907.

Name of District, MIDDLEWICH (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
Small-pox	NO PUBLIC INSTITUTIONS.
Measles ...	3	...	3	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...
Whooping-cough...	...	...	...	...	...	...	...
Diphtheria (including Mem- branous Croup) ...	4	...	2	2	...	...	...
Croup ...	...	...	...	...	...	...	...
Fever { Typhus ...	...	...	...	...	...	...	...
{ Enteric ...	...	...	...	...	...	...	...
{ Rheumatic ...	1	...	...	...	1	...	...
Epidemic Influenza ...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...
Diarrhœa ...	1	1	...	...	...	...	...
Enteritis ...	1	...	1	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...
Erysipelas ...	1	...	1	...	...	...	...
Other Septic Diseases ...	...	...	...	...	...	...	...
Phthisis ..	7	...	1	1	1	4	...	
Other Tubercular Diseases	7	1	2	4	...	...	...
Cancer, Malignant Disease	4	...	...	...	...	3	1
Bronchitis ...	3	2	...	...	...	1	...
Pneumonia ...	9	5	1	1	...	2	...	
Pleurisy ...	...	...	...	...	...	...	...
Other Diseases of Respira- tory Organs ...	1	...	1	...	...	...	...
Alcoholism ...	...	...	...	...	...	...	...
Cirrhosis of Liver {	1	...	...	...	...	1	...
Venereal Diseases ...	...	...	...	...	...	...	...
Premature Birth ...	2	2	...	...	...	...	...
Diseases and Accidents of Parturition ...	1	...	...	...	...	1	...
Heart Diseases ...	13	...	...	1	2	7	3
Accidents ...	3	...	1	...	...	1	1
Suicides ...	...	...	...	...	...	...	...
Debility, &c. ...	3	2	1	...	...	...	...
Convulsions, &c. ...	...	...	...	...	...	...	...
Cerebral Diseases...	5	1	...	...	...	2	2
Old Age ...	5	...	...	...	...	...	5
All other causes ...	4	...	2	...	...	1	1
All causes ...	79	14	16	9	4	23	13	

TABLE 58.

(Local Government Board Table V.)

Infantile Mortality during the year 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Name of District, MIDDLEWICH (URBAN).

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified	2	...	...	2	4	5	1	...	1	...	...	...	2	...	...	1	14
	Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases.	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases.	Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diarrhoea, all forms ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Enteritis, Muco-enteritis, } ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gastro-enteritis } ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Wasting Diseases.	Gastritis, Gastro-intestinal Catarrh } ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Premature Birth	1	...	2	3	...	...	...	...	...	...	...	...	...	...	...	...	3
	Congenital Defects	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
	Injury at Birth ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Diseases.	Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus } ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous Peritonitis : } ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Tabes Mesenterica } ... ..	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
	Other Tuberculous Diseases } ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous) } ... ..	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
	Convulsions ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bronchitis ... ..	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2
	Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia ... ..	...	...	...	...	...	2	...	...	...	...	...	...	2	...	1	...	5
Suffocation, overlaying ... ..		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes ... ..		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		2	...	2	4	5	1	...	1	...	...	...	...	2	...	1	14	

District of Middlewich. Population estimated to middle of 1907 . . . 4950.

Births in the year { legitimate ... 137 Deaths in the year { legitimate infants ... 12
 { illegitimate ... 6 { illegitimate infants ... 2

Deaths from all Causes at all ages, 79.

TABLE 59.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1907.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths.	Average.	1907.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1907.	Average.	1907.				
143	79	7	35.2	28.9	16.5	15.9	2.4	1.4	13	14	16	18

TABLE 60.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1907.

QUARTER ENDING.	Total Deaths.	Rate.	DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Diphtheria.	Measles.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis.
			At 65 Years and up- wards.	Under One Year.	At 65 Years and up- wards.	Under One Year.				Total.	Rate.	
March 31	15	12·3	3	3	20	20	3	0	0	3	2·5	1
June 30	10	8·1	2	0	20	0	0	0	0	0	0·0	1
Sept. 30	27	21·7	3	4	11	15	0	1	0	1	0·8	2
Dec. 31	27	21·7	5	7	19	26	0	2	1	3	2·4	3
Total	79	15·9	13	14	17	18	3	3	1	7	2·4	7

TABLE 61.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	TOTAL.
1890	—	—	—	—	—	—	—
1891	—	—	—	9	—	—	9
1892	—	—	1	—	—	—	1
1893	—	88	4	14	17	—	123
1894	—	7	1	7	9	—	24
1895	—	49	1	1	1	1	53
1896	—	55	2	2	8	—	67
1897	—	18	2	1	8	2	31
1898	—	11	3	2	2	—	18
1899	—	2	—	1	20	—	23
1900	—	4	2	—	6	—	12
1901	—	3	—	—	5	—	8
1902	—	11	10	3	11	—	35
1903	4	14	4	—	4	—	26
1904	—	5	67	—	7	1	80
1905	—	10	39	1	10	1	61
1906	—	4	31	3	9	1	48
Total of 17 years.	4	281	167	44	117	6	619
Average of 17 years	0·2	16	10	2·6	7	0·3	36
1907	—	10	37	—	8	1	56

TABLE 62.

Deaths from Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping- cough.	Diarrhoea.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	—	—	—	—	—	3	3	3	—	—
1891	—	1	1	1	—	6	5	14	6	—	—
1892	—	—	—	—	—	—	1	1	5	1	1
1893	—	4	3	3	1	—	6	17	4	—	1
1894	—	1	—	—	—	—	2	3	2	—	—
1895	—	1	1	—	—	7	5	14	8	1	—
1896	—	3	2	1	—	4	5	15	2	—	—
1897	—	—	—	—	6	1	4	11	4	1	—
1898	—	1	1	1	—	4	9	16	4	—	—
1899	—	—	—	—	—	—	13	13	3	—	—
1900	—	1	1	—	—	—	—	2	1	—	—
1901	—	—	—	—	6	1	5	12	7	—	—
1902	—	—	7	1	—	—	2	10	4	—	—
1903	—	—	1	—	—	3	4	8	2	—	—
1904	—	—	8	—	9	1	3	21	5	—	—
1905	—	—	11	—	1	1	4	17	1	—	1
1906	—	—	—	2	—	—	4	6	8	—	—
Total of 17 years	—	12	36	9	23	28	75	183	69	3	3
Average of 17 Years	—	0.7	2	0.5	1.3	1.6	4	11	4	0.2	0.2
1907	—	—	3	—	3	—	1	7	7	—	1

TABLE 63.

Births.

	M.	F.	Total.	Rate.	Of which Illegitimate.		
					M.	F.	Total.
1st Quarter	16	13	29	23·8	1	1	2
2nd "	11	22	33	26·7	0	2	2
3rd "	24	19	43	34·5	0	2	2
4th "	20	18	38	30·5	0	0	0
Total ...	71	72	143	28·9	1	5	6

TABLE 64.

Shewing position of Middlewich in the County in 1906, compared with 35 other Urban Districts.

	Best of 36 Urban Districts	Worst of 36 Urban Districts	Middle- wich Figures.	Place of Middle- wich in the List.
Birth Rate	36·2	17·0	33·6	3
Death Rate	4·9	21·5	13·4	21
Zymotic Death Rate	0·0	3·7	0·8	11
Infantile Mortality	17	277	129	28

TABLE 65.

Vaccination.

Year.	Number of Births Registered.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Dead. Unvaccinated.	Postponed on Medical Certificate.	Removed, and Traced.	Removed, and Lost.	Consentious Objections.	Unaccounted for.
1896	269	242	—	—	21	3	—	3	—	—
1897	267	234	1	—	23	2	1	3	3	—
1898	240	204	1	—	21	4	1	4	4	1
1899	219	184	3	—	23	1	1	3	1	3
1900	250	210	1	—	26	—	1	5	3	4
1901	225	195	2	—	22	—	2	—	3	1
1902	256	227	—	—	23	2	1	1	1	1
1903	246	211	—	—	23	1	—	6	2	3
1904	228	189	1	—	27	2	6	—	2	1
1905	228	205	1	—	15	3	—	3	1	—
Total in 10 years	2428	2101	10	—	224	18	13	28	20	14
1906	244	212	—	—	24	1	2	2	2	1

TABLE 66.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1907, in the Urban District of Middlewich.

				Inspections and Observations made.	Formal Notices by Authority.	Nuisances Abated after Notice.	
Dwelling- Houses and Schools.	{	Foul Conditions ... ..	...	474	...	...
		Structural Defects ... ..	...			
		Overcrowding ... ..	...			
		Unfit for Habitation ... ..	...			
		Lodging Houses ... ..	...	12	...	...
		Dairies and Milkshops ... ..	...	84	...	...
		Cowsheds ... ..	...			
		Bakehouses... ..	...			
		Slaughter-houses ... ..	...	15	...	...
		Canal Boats ... ..	...	30	...	...
House Drainage.	{	Ashpits and Privies and W.C's. ...	...	79	...	...
		Deposits of Refuse and Manure ...	...	467	10	27
		Water Closets ... ..	...	6	...	...
		Defective Traps ... ..	...	474	...	...
		No Disconnection .. ..	...			
		Other Faults ... ..	...			
		Water Supply ... ..	...			
		Pigsties .. ..	...	...	...	...
		Animals improperly kept .. ..	...	...	...	...
		Offensive Trades .. ..	...	5	...	...
Smoke Nuisances ... ..	...	...	...	...
Other Nuisances, Infectious Disease, &c.			125	...	...
TOTALS			1771	10	27		
						Nos.	
<i>Precautions against Infectious Disease.</i>							
Lots of Infected Bedding Disinfected or Destroyed	}	...
Houses Disinfected after Infectious Disease
Schools Disinfected after Infectious Disease
Prosecutions for Exposure of Infected Persons or things			
Convictions ditto ditto			

FRED W. STOCKS,

January 25th, 1908.

Inspector of Nuisances.

TABLE 67.

Annual Report of the Medical Officer of Health for the year 1907, for the Urban District of Middlewich, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.				Inspections.	Number of Written Notices.	Prosecutions.
Factories ...	...	...	...	30	...	...
(Including Factory Laundries.)						
Workshops ...	...	...	...	108	...	...
(Including Workshop Laundries)						
Workplaces ...	...	...	...	...	...	...
Total ...				138	...	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Sanitary Accommodation—				
Unsuitable or defective	3	3	...	...

4.—REGISTERED WORKSHOPS.

Class.						Number.
General Workshops ...	...	...	...	...	...	44
Bakehouse Workshops ...	...	...	...	...	...	5
Total ...						49

5.—OTHER MATTERS.

<i>Matters notified to H.M. Inspector of Factories :—</i>						
Failure to affix Abstract of the Factory and Workshop Act ...						
Reports (of action taken) sent to H.M. Inspector	...	...	...	...	...	1
Total ...						2

MIDDLEWICH URBAN DISTRICT.

Note.—The matter printed on pages 3 to 5, and 8 to 18 inclusive, is to be read as part of this Report.

Area.—Unchanged.

Special Features.—See Special Report in Volume for 1905, page 47.

Population.—(See paragraph on page 10). It seems not unlikely that we may have been too hesitating, in keeping the estimate down to 4850 for three years consecutively; and for 1907 I feel justified in advancing it to 4950, on information kindly supplied by the Clerk from the rate book, which makes it probable that the exact figure is somewhere between 4950 and 5000. I prefer to be below, rather than above, the true figure; as then the corrections in present calculations, which will have to be made after the next Census, will tend to improve the Rates as now presented year by year.

Tables.—By the exclusion of 1896, and the inclusion of 1906. the average birth-rate further falls from 36.1 to 35.2; and the average death-rate from 17.0 to 16.5. The average infant-mortality-figure remains at 156. The average zymotic death-rate rises from 2.3 to 2.4.

Births.—(Tables 55 and 63). 71 males and 72 females, total 143; Rate 28.9. The total is the lowest recorded; and when compared with an increased population, the Rate shows a very heavy decline. It has never before been under 30.0. The Rate for England and Wales for 1907 is 26.3; so that we have the (somewhat poor) consolation of still exceeding that figure, though only by 2.6.

Illegitimate Infants.—6 were registered among the 143 births; or 4.2 per cent. 2 died, or 33 per cent. of illegitimate births; whilst 12 died among 137 legitimate children, or just under 9 per cent.

Deaths.—(Tables 57 and 60). The number registered in the District was 70, and to these must be added 4 in the Workhouse at Northwich; 3 in the Albert Infirmary, Winsford; 1 in the Davenham Isolation Hospital, and 1 in the Manchester Royal Infirmary; so that the total is 79 (44 males and 35 females).

The death-rate is 15·9. The number is 2 above the average, but owing to increase of population the Rate is 0·6 below the average. It is, however, 0·9 above the Rate for England and Wales for 1907; and Table 1 shows that Middlewich is the only one of my Districts which is on the wrong side as compared with the average of the whole Kingdom.

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus :—

	No. of deaths.		Actual Rate.
January	4	...	0·808
February	7	...	1·414
March	4	...	0·808
April	4	...	0·808
May	4	...	0·808
June	2	...	0·404
July	5	...	1·010
August	12	...	2·424
September	10	...	2·020
October	13	...	2·626
November	3	...	0·606
December	11	...	2·222
	<hr/> 79		<hr/> 15·958

This shows 25 deaths in the first half year, and 54 in the second; a curious contrast; and yet comparable with 1906, when the numbers were 24 and 41. The half-yearly Rates for 1907 are 10·2 and 21·6.

Uncertified Deaths.—None.

Coroner's Inquests.—6 were held in the District, and 1 in the Albert Infirmary. February 9th, F., 46 years, shock, following accidental burns; May 18th, F., 2 years, meningitis, following a fall; July 9th, M., 23 years, found dead in bed, heart disease; September 16th, F., 55 years, heart disease; September 25th, F., 6 years, pneumonia (scarlet fever)?; October 8th, M., 13 years, tubercular peritonitis; December 18th, F., 91 years, shock, following a fall.

Comparative Position.—This applies to 1906, which was a good year. The District was about 16th out of 36 Urban Districts in the County; and justified my expectation of an improvement on 1905, when the place was about 24th. In fact, 1897 and 1900 are the only years (during my time) to show any improvement on 1906.

Infantile Mortality.—(Tables 55 and 58). This is the best feature of the statistics for 1907. The number of deaths, and the rate per thousand births, are alike the lowest recorded; and are 46 and 37 per cent. respectively below the averages. (This applies to the 10 previous years in Table 55. It must be remembered, however, that in 1894 the figure was only 87).

Mortality among Old People.—The number of deaths at 65 years of age and upwards was 13, or 16 per cent. of all deaths. This is a low proportion.

Notifications of Infectious Diseases.—(Tables 56 and 61). These numbered 56, (of which 35 occurred before the end of April); and the case-rate per 1000 of population was 11·3. In 1906 the figures were 48 and 9·9; in 1905 61 and 14·6; in 1904 80 and 16·5. In the four years diphtheria has been responsible for 174 out of 245 notifications. The average total of notifications (for 17 years) is 36; and this has been considerably exceeded in each of the last four years.

Isolation Hospital.—The Hospital at Davenham continues to be of great value. 25 cases of diphtheria and 5 cases of scarlet fever were removed in 1907, being nearly 54 per cent. of notifications. Among the Hospital cases, one of diphtheria (only) proved fatal; and this child had not been treated with antitoxin before admission. The record for two years is now 47 cases of diphtheria, and 6 of scarlet fever, admitted from Middlewich, with only one death.

Deaths from Zymotic Diseases.—(Table 62). 7 are registered; which gives a Rate of 1·4; the average for the preceding 10 years being 2·4. The Rate for England and Wales for 1907 was 1·26.

Small-pox.—Absent.

Vaccination.—I am again indebted to Mr. Worrall, the Vaccination Officer, for the figures for 1906 in Table 65. In the Middlewich Sub-District of the Northwich Union (of which the town of Middlewich forms about two-thirds) in 1906 212 children were successfully vaccinated out of 220 surviving; or over 96 per cent. During the 11 years 1896–1906 the percentage is 95.

These excellent results will no doubt be continued for 1907; but after that I expect to find a falling off, attributable to the new Act, which facilitates the path of the so-called Conscientious objector. It is a scientific certainty that small-pox will again take its toll of the un-vaccinated, as soon as they form an appreciable fraction of the population.

Measles.—An epidemic appeared early in September, which necessitated the closing of the Roman Catholic School, and of the Infants' Department of the Council School. Two female teachers were appointed as "health visitors," on September 10th, and acted under my instructions. Each infected house was visited daily; and mothers were exhorted to keep sick children in bed a sufficient length of time, and to take extra precautions afterwards in the matter of clothing and avoidance

of chill ; and infected families were isolated as far as possible. Nearly 400 cases were known ; one death occurred on August 27th, before the epidemic was recognised ; **no other death occurred while the lady visitors were on duty** ; two more occurred (October 31st and November 9th) shortly after they were withdrawn. One of these was a delicate child, which might have died in any event. In each case, the immediate cause of death was pneumonia.

Precisely similar and parallel results have now been obtained by me on many occasions, by the same simple means ; see Annual Report 1905, pages 14 and 15.

It may be noted that the Senior Schools were not closed at all, during this 1907 epidemic in Middlewich.

Scarlet Fever.—No deaths occurred ; 10 cases were notified ; of which 5 were removed to Hospital. 5 cases occurred in April ; the others were scattered from January to October.

Whooping-cough.—No deaths occurred ; and there was probably no prevalence.

Diphtheria.—For the sixth year in succession this epidemic “drags its slow length along.”

From Tables 61 and 62 we find

Year.	Cases.	Deaths.
1902	10	7
1903	4	1
1904	67	8
1905	39	11
1906	31	0
1907	37	4
	<hr/> 188	<hr/> 31

20 cases occurred in the first Quarter, 4 in the second, 8 in the third, and 5 in the fourth.

I have nothing to add on this occasion to the facts, inferences, or opinions expressed in my previous reviews of the epidemic ; except to explain one word in my last Report. I there said “the ground upon which the town stands is undoubtedly filth-laden from the existence of numerous privy middens of faulty construction, and a general insanitary condition of much of the old cottage property, &c.” I think it would be fairly obvious to my official superiors that the words “filth laden” were distinctly limited by the context to those parts of the town specially mentioned. As some members of the District Council feared that an exaggerated effect might be produced by what they consider to be “unnecessarily strong language,” I have much pleasure in making this explanation, and in drawing distinct attention to the limitation.

Of the 37 cases of diphtheria in 1907, 25 were removed to Hospital ; or $67\frac{1}{2}$ per cent.

Enteric Fever.—No cases.

Diarrhœa and Enteritis.—A death from “gastro-enteritis” (child $1\frac{1}{2}$ years) occurred in August, and one from “gastro-enteritis, collapse” (child 2 months), late in December. According to instructions on Local Government Board Table IV., the latter is to be classified as *diarrhœa*, the former as *enteritis*.

In Table 34, Annual Report, 1906, 2 cases entered as *enteritis* should have been included under *diarrhœa*; according to the same rule. The number of zymotic deaths for that year was therefore 6 (instead of 4), and the Rate 1·2 (instead of 0·8).

Puerperal Fever.—1 case notified. Recovered.

Erysipelas.—8 notifications; 1 death; a child 3 years of age; no explanation. 4 deaths have now occurred, in 18 years, among 125 cases.

Other Septic Diseases.—None.

Phthisis.—7 deaths, Rate 1·4; (the annual average being 4 only). Ages at death: $1\frac{1}{2}$, 10, 23, 31, 32, 38, 41 years. 6 males, 1 female.

Other Tubercular Diseases.—7 deaths, Rate 1·4. Ages from 1 month to 13 years. 5 males, 2 females. Peritonitis stated in 5 cases, meningitis in 2 cases. It is a statistical fact that the word “tubercular” occurs more frequently in this District (in proportion to its size) than in any other of my Districts. (See Table 2 in the Annual Report of this, or any recent, year).

Cancer.—4 deaths; Rate 0·8. 1 male, 3 females. Site of disease respectively breast, liver, jaw, and one not stated. Ages 38, 45, 52, 68 years.

Respiratory Diseases.—13 deaths; Rate 2·6.

Alcoholism.—One death; M., 43 years.

Accidents of Parturition.—One death; attributed to syncope; age 31 years.

Heart Diseases.—13 deaths; Rate 2·6.

Accidents.—3 deaths; see “Coroner’s Inquests.”

Water Supply.—Early in the year this heavy undertaking was brought to a successful conclusion, and the District now enjoys the advantage of a public supply of water (from the Red Sandstone in Delamere Forest) of excellent quality, and in quantity more than sufficient for its present needs. This must have a beneficial effect on the sanitary condition of the town, and on the health of its inhabitants, though it is too soon yet to be able to recognise it.

Sewage Disposal.—This is another heavy undertaking,

second only in importance to the water supply ; and is, I presume, now in progress ; but I have no details.

Inspector's Department.—The Inspector has furnished Tables 66 and 67 ; and makes the following remarks :—

“I do not include cases where no formal notice has been served, but where defects and nuisances have been rectified after being pointed out to the owners; of which no record has been kept.

“Peat Pail System. This system of collection of night-soil continues to increase; there being now 271 pails in use, or an increase of 47 during the year.”

Systematic Inspection.—This has been in entire abeyance during the year. I have, so far as I remember, made no visits to the District for this purpose. I endeavoured to make appointments with the Inspector several times, but without success. The attitude which the Inspector assumed towards me during the last 3 or 4 months of the year, at meetings of the Council or Committee, forces me to the conclusion that his behaviour was premeditated.

As he has since resigned, I need not pursue the subject.

But it is clearly important, in view of a fresh appointment, that the members of the Council should properly understand the relative position of the two officers. The Medical Officer of Health is the head of the Health Department, and is the Chief Advisory Officer of the Council ; and is specifically empowered by the Local Government Board to direct and control the work of the Inspector, in all details not included in any definite instructions from the Council. The Inspector is a subordinate officer ; see for details Article 19, (1), (7), (9), (10), and (12), of the Local Government Board Order of 23rd March, 1891. It is when this is forgotten or ignored, and when he attempts to pose as an *independent* officer, that the work of the Medical Officer of Health becomes impossible, except by an exercise of authority which would probably produce greater disturbance than it is worth. The Medical Officer of Health, in consulting the dignity of his position, can only retire temporarily from the unseemly contest, and, referring calmly and dispassionately to the matter in his next Annual Report, leave the issue in the hands of the Local Government Board.

During 1907, therefore, Dairies and Cowsheds, Bake-houses, Slaughter-houses, and Factories and Workshops have been visited and supervised by the Inspector, but not by myself.

Insanitary Property.—During the year the Local Government Board made enquiry respecting the improvement of insanitary conditions alluded to in my remarks (Annual Report 1906) on the continued prevalence of diphtheria ; and afterwards

called for a special report from me. I consider that **undue importance** was thus made to attach to a few words of mine, in that they were removed from their context (prevalence of diphtheria), and made to assume the appearance of an attack upon the Sanitary condition of the town ; than which nothing was further from my intention. Moreover I had, for the reasons given above, no personal knowledge of the condition during 1907 ; and the Council refused my application to inspect the Inspector's reports, (which the Local Government Board says I am entitled to do), so my special report was necessarily incomplete and unsatisfactory. I deeply regret the direction taken by events in my Department during the year ; but I am in no way personally responsible, nor have I anything which I am afraid of subjecting to the fullest investigation.

T. W. H. GARSTANG,

D.P.H. Vict.

March 2nd, 1908.



Winsford Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1907.

Population at Census, 1891, 10,440.

Population at Census, 1901, 10,382

Decrease, 58.

Estimated Population in middle of 1907, 10,430.

Area of District in Acres (exclusive of area covered by water) 5,780—100=5,680.

Total Population at all Ages, 10,382.

Number of Inhabited Houses, 2,167.

Average Number of Persons per House, 4·8.

} At Census of
1901.

Institutions within the District receiving sick and infirm persons from outside the District: Albert Infirmary, in Wharton. (Receives from Middlewich).

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, at Northwich. Infectious Diseases' Hospital at Davenham.

Other Institutions, the deaths in which have been distributed among the several localities in the District: Nil.

Birth Rate per 1,000 living, 28·5.

Death Rate per 1,000 living, 13·7.

Death Rate from Seven Principal Zymotic Diseases, 1·0.

Deaths under one year in proportion to 1,000 Births, 104.

Hospital: Davenham.

Workhouse: In Northwich Urban District.

Each birth or death contributes to the Rate 0·09588.

TABLE 68.

(Local Government Board Table 1.)

Vital Statistics of Whole District during 1907 and Previous Years.

Name of District, WINSFORD (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate.	Under 1 Year.		At all Ages.					Number.	Rate.
				Number.	Rate per 1000 Births registered.	Number.	Rate.					
1897	10407	358	34'4	67	184	177	...	...	...	2	178	17'1
1898	10400	352	33'7	52	148	157	...	...	..	5	161	15'5
1899	10394	341	32'8	42	123	167	...	...	..	...	164	15'8
1900	10388	345	33'2	46	133	162	...	..	...	4	165	15'9
1901	10382	324	31'2	29	89	132	...	1	...	...	132	12'7
1902	10375	316	30'4	40	127	146	...	1	...	...	145	13'9
1903	10370	335	32'3	40	119	135	...	4	1	6	139	13'4
1904	10365	335	32'3	45	134	165	...	8	4	1	162	15'6
1905	10355	313	30'2	36	115	157	...	6	3	2	156	15'1
1906	10445	314	30'1	52	166	140	...	6	5	1	136	13'0
Averages for years 1897-1906	10388	333	30'1	45	134	154	...	2	1	2	154	14'8
1907	10430	298	28'5	31	104	146	...	5	3	5	143	13'7

TABLE 69.

(Local Government Board Table II.)

Vital Statistics of separate Localities in 1907 and previous Years.

Name of District, WINSFORD (URBAN).

NAMES OF LOCALITIES.		1.—OVER.				2.—WHARTON.			
YEAR.		Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1897	...	6960	236	113	41	3447	122	65	26
1898	...	6990	241	110	34	3410	111	51	18
1899	...	7015	227	96	30	3379	114	68	12
1900	...	7040	238	104	28	3348	107	61	18
1901	...	7063	228	89	21	3319	96	43	8
1902	...	7092	212	95	24	3283	104	50	16
1903	...	7110	239	96	28	3260	96	43	12
1904	...	7125	219	107	29	3240	116	55	16
1905	...	7100	215	108	25	3255	98	48	11
1906	..	7170	200	80	26	3275	114	56	26
Averages of years 1897 to 1906.		7066	226	100	29	3322	108	54	16
1907	...	7160	211	102	22	3270	87	41	9

TABLE 70.—(Local Government Board Table III.)

Cases of Infectious Disease notified during the Year 1907.

Name of District, WINSFORD (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.		NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.		
	At all Ages.	At Ages—Years.						OVER.	WHARTON.	OVER.	WHARTON.	Total Cases Removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.					
Small-pox ...	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ...	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	20	..	9	9	2	..	..	12	8	9	3	12
Erysipelas ...	16	1	1	..	1	13	..	3	13	..	..	..
Scarlet Fever ...	34	1	13	18	2	..	..	26	8	24	5	29
Typhus Fever ...	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ...	1	..	..	..	1	..	..	1	..	1	..	1
Relapsing Fever ...	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ...	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	9	..	..	..	2	7	..	6	3	..	..	..
Plague ...	..	..	..	..	..	..	..	..	..	..	..	..
Totals ...	80	2	23	27	8	20	..	48	32	34	8	42

TABLE 71.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1907.

Name of District, WINSFORD (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Res- idents" belonging to Lo- calities, whether occurring in or beyond the District.		Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	OVER.	WHAR- TON.	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...
Measles	1	...	1	...	...	...	...	1	..	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...
Whooping-cough... ..	3	1	2	...	...	...	...	1	2	...
Diphtheria (including Mem- branous Croup)	5	...	1	4	...	...	...	3	2	...
Croup ... ..	...	...	...	...	...	...	...	...	...	..
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...
{ Enteric ... ..	...	...	...	...	...	...	...	...	...	...
{ Rheumatic .. 3	...	...	...	...	2	1	...	2	1	...
Epidemic Influenza	1	...	...	...	...	1	...	1	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...
Diarrhoea	2	2	..	...	...	...	...	1	1	...
Enteritis ... ..	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	5	...	...	...	2	3	...	4	1	...
Erysipelas	1	1	...	...	...	...	...	...	1	...
Other Septic Diseases ... ..	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuber- culosis)	5	...	...	1	...	4	...	4	1	1
Other Tubercular Diseases ..	...	...	...	...	...	...	...	...	...	...
Cancer, Malignant Disease ..	11	...	...	...	...	8	3	9	2	...
Bronchitis	11	3	2	...	...	1	5	7	4	...
Pneumonia	9	3	1	...	1	3	1	6	3	1
Pleurisy	1	...	...	...	...	...	1	1	...	...
Other Diseases of Respira- tory Organs ... ..	...	...	...	...	...	...	...	...	...	..
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver {	1	...	...	...	...	1	...	1	...	...
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	...	..
Premature Birth	11	11	...	...	...	...	...	7	4	...
Diseases and Accidents of Parturition	2	...	...	...	...	2	...	2	..	...
Heart Diseases	22	...	...	...	3	10	9	15	7	1
Accidents	7	...	2	1	...	3	1	6	1	1
Suicides ... ..	...	...	...	...	...	...	...	...	...	...
Debility, &c.	4	4	...	...	...	...	...	4	...	...
Convulsions, &c.	6	6	...	...	...	...	...	5	1	...
Cerebral Diseases... ..	12	...	...	...	...	4	8	8	4	...
Old Age	6	...	...	...	...	...	6	4	2	...
All other causes	14	...	2	2	1	3	6	10	4	1
All causes	143	31	11	8	9	44	40	102	41	5

TABLE 72.

(Local Government Board Table V.)

Infantile Mortality during the year 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

Name of District, WINSFORD (URBAN).

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified ...	14	2	...	...	16	2	3	...	...	1	1	2	...	2	1	...	28
	Uncertified ...	1	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	3
Common Infectious Diseases.	Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria : Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases.	Whooping Cough	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
	Diarrhoea, all forms	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
	Enteritis, Muco-enteritis, } Gastro-enteritis }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gastritis, Gastro-intestinal Catarrh }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
	Premature Birth ...	10	1	...	...	11	...	...	...	...	...	...	...	...	...	...	...	11
Wasting Diseases.	Congenital Defects	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Injury at Birth ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus }	2	...	...	...	2	1	...	...	...	...	...	...	...	1	...	...	4
Tuberculous Diseases.	Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous Peritonitis : } Tabes Mesenterica }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Tuberculous Diseases }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Erysipelas ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
	Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Rickets ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous) }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions ...	2	1	...	...	3	...	1	...	...	...	...	...	1	...	...	...	5
	Bronchitis ...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	3
	Laryngitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia ...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	3
	Suffocation, overlaying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Causes ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		15	2	...	...	17	2	3	1	...	1	1	2	1	2	1	...	31

District of Winsford.

Population estimated to middle of 1907 . . 10430.

 Births in the year { legitimate ... 275
 { illegitimate ... 23

 Deaths in the year { legitimate infants ... 30
 { illegitimate infants ... 1

Deaths from all Causes at all ages, 143.

TABLE 73.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1907.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths	Average.	1907.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1907.	Average.	1907.				
298	143	11	32·0	28·5	14·8	13·7	1·9	1·0	40	31	28	22

TABLE 74.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1907.

QUARTER ENDING.	Total Deaths.	DEATHS.			PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Diphtheria.	Whooping Cough.	Measles.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis.
		Rate.	At 65 Years and up- wards.	Under One Year.	At 65 Years and up- wards.	Under One Year.					Total.	Rate.	
March 31	35	13·6	12	6	34	17	1	0	0	1	2	0·8	1
June 30	45	17·3	15	6	33	13	1	0	0	0	1	0·4	2
Sept. 30	20	7·6	3	6	15	30	0	1	0	1	2	0·8	1
Dec. 31	43	16·3	10	13	23	30	3	2	1	0	6	2·3	1
Total	143	13·7	40	31	28	22	5	3	1	2	11	1·0	5

TABLE 75.

Shewing position of Winsford in the County in 1906, compared with 35 other Urban Districts.

	Best of 36 Urban Districts	Worst of 36 Urban Districts	Wins- ford Figures,	Place of Wins- ford in the List.
Birth Rate	36·2	17·0	30·1	5
Death Rate	4·9	21·5	13·0	17
Zymotic Death Rate	0·0	3·7	1·2	22
Infantile Mortality	17	277	166	34

TABLE 76.

Births.

OVER.							
	M.	F.	Total.	Rate.	Of which Ille- gitimate.		
					M.	F.	Total.
1st Quarter	28	22	50	28·3	0	2	2
2nd ,,	34	37	71	40·0	3	3	6
3rd ,,	21	20	41	22·7	2	1	3
4th ,,	24	25	49	27·2	2	4	6
Total ...	107	104	211	29·5	7	10	17
WHARTON.							
1st Quarter	12	6	18	22·3	1	0	1
2nd ,,	14	11	25	30·7	0	1	1
3rd ,,	10	15	25	30·4	0	3	3
4th ,,	7	12	19	23·1	0	1	1
Total ...	43	44	87	26·6	1	5	6
Winsford Total	150	148	298	28·5	8	15	23

TABLE 77.

Vaccination.

Year.	Number of Births Registered.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Dead. Unvaccinated.	Postponed on Medical Certifi- cate.	Removed, and Traced.	Removed, and Lost.	Conscientious Objections.	Unaccounted for.
1896	472	422	1	—	41	6	—	2	—	—
1897	450	398	—	—	49	2	—	—	—	1
1898	428	379	—	—	43	2	1	—	2	1
1899	421	385	—	—	32	1	2	—	1	—
1900	428	374	—	—	37	13	1	1	2	—
1901	393	361	—	—	22	7	—	1	2	—
1902	404	374	1	—	24	3	—	—	2	—
1903	403	350	—	—	42	4	2	—	5	—
1904	427	373	1	—	41	5	1	1	5	—
1905	403	358	—	—	29	8	2	—	6	—
Total in 10 years	4239	3774	3	—	360	51	9	5	25	2
1906	399	334	—	—	43	9	1	—	12	—

TABLE 78.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	TOTAL.
1890	—	23	9	3	6	1	42
1891	—	5	1	5	2	2	15
1892	—	14	12	—	17	—	43
1893	3	222	3	3	32	6	269
1894	—	11	—	3	7	2	23
1895	—	31	—	2	9	4	46
1896	—	173	4	1	17	2	197
1897	—	25	2	1	19	—	47
1898	—	11	2	1	7	1	22
1899	—	18	2	1	17	1	39
1900	—	114	6	4	21	2	147
1901	—	65	2	5	18	3	93
1902	—	20	8	1	12	3	44
1903	1	4	2	—	12	4	23
1904	—	20	1	2	20	—	43
1905	—	25	2	1	21	2	51
1906	—	6	9	2	19	2	38
Total of 17 years.	4	787	65	35	256	35	1182
Average of 17 years	—	46	4	2	15	2	70
1907	—	34	20	1	16	9	80

TABLE 79.

Deaths from Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping- cough.	Diarrhea.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	3	6	1	1	1	4	16	11	—	—
1891	—	—	2	—	—	13	7	22	14	—	1
1892	—	1	5	—	5	—	3	14	9	—	1
1893	1	7	1	—	—	—	11	20	12	3	1
1894	—	1	—	1	3	12	2	19	8	—	—
1895	—	3	—	—	9	1	17	30	10	5	—
1896	—	7	3	1	3	—	5	19	21	—	—
1897	—	—	—	—	1	33	11	45	11	—	—
1898	—	2	1	—	—	—	18	21	11	—	—
1899	—	1	—	—	7	3	6	17	13	1	1
1900	—	15	2	—	—	3	6	26	10	—	—
1901	—	2	1	2	—	1	4	10	6	—	2
1902	—	—	4	1	6	5	4	20	9	—	—
1903	—	—	—	—	—	1	8	9	8	1	—
1904	—	—	—	—	—	6	11	17	4	—	—
1905	—	1	—	—	21	1	6	29	5	1	2
1906	—	—	4	1	—	1	7	13	4	1	1
Total of 17 years	1	43	29	7	56	81	130	347	166	12	9
Average of 17 Years	—	3	2	—	3	5	8	20	10	—	—
1907	—	—	5	—	1	3	2	11	5	5	1

TABLE 80.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1907, in the Urban District of Winsford.

		NUMBER OF		ABATEMENT NOTICES.		NUISANCES ABATED AFTER NOTICE BY	
		Inspections and Observations made.	Defects found.	Informal by Inspector.	Formal by Authority.	Inspector.	Authority.
Dwelling-Houses and Schools.	Foul Conditions	32	21	19	2	17	2
	Structural Defects	10	10	...	10	*	*
	Overcrowding	16	12	8	4	8	3
	Unfit for Habitation	10	10	...	4	†	†
	Lodging Houses	24	1	...	1	...	1
	Dairies and Milkshops	84	8	8	...	7	...
	Cowsheds	140	12	12	...	10	...
	Bakehouses... ..	84	2	2	...	2	...
	Slaughter-houses	189	8	8	...	8	...
	Canal Boats	25	3	3	...	3	...
House Drainage.	Ashpits and Privies	760	122	70	52	62	40
	Deposits of Refuse and Manure	160	27	13	14	13	14
	Water Closets	220	17	17	...	17	...
	Defective Traps	157	29	27	2	27	2
	No Disconnection .. ..	...	...	...	...	...	...
	Other Faults	58	28	27	1	27	1
	Water Supply	5	5	5	...	5	...
	Pigsties	70	25	25	...	23	...
	Animals improperly kept	2	2	1	1	1	1
	Offensive Trades	12	1	1	...	1	...
	Smoke Nuisances	8	4	4	...	4	...
	Other Nuisances ... ..	...	...	...	...	...	...
	TOTALS	2066	347	250	91	239	70
							Nos.
Samples of Water taken for Analysis							3
<i>Precautions against Infectious Disease.</i>							
Lots of Infected Bedding Disinfected or Destroyed							50
Houses Disinfected after Infectious Disease							70
Schools Disinfected after Infectious Disease							24
Prosecutions for Exposure of Infected Persons or things ... ..							...

* Being Remedied.

† 4 closed, 6 pulled down, and 2 new ones erected.

THOS. HICKSON,

January 22nd, 1908.

Inspector of Nuisances.

TABLE 81.

Annual Report of the Medical Officer of Health for the year 1907, for the Urban District of Winsford, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.			Inspections.	Number of Written Notices.	Prosecutions.
Factories ... ..	...	...	48	...	...
(Including Factory Laundries.)					
Workshops ... ..	...	...	212	...	...
(Including Workshop Laundries.)					
Workplaces ... ..	...	...	...	...	...
			—	—	—
Total ... ..	...	...	260	...	...
			—	—	—

2.—DEFECTS FOUND.

Particulars.		Found.	Remedied	Number of Defects Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>					
Want of Cleanliness ...	...	12	10	...	...
Want of Ventilation ...	...	4	4	...	...
Other Nuisances ...	...	6	6	...	...
Sanitary Accommodation—					
Insufficient ... ..	...	5	5	...	...
		—	—	—	—
Total ... ..	...	27	25	...	...
		—	—	—	—

3.—HOME WORK.

	Lists received from Employers.			Inspections of Outworkers' Premises.
	Lists.	Contractors.	Workmen.	
Wearing Apparel—				
Making, &c.	2	2	16	32

4.—REGISTERED WORKSHOPS.

Class.		Number.
Total number of Workshops on Register ... ..	...	143

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories :—

Failure to affix Abstract of the Factory and Workshop Act ... ..	...	...	...	...	1
Underground Bakehouses ... ..	...	...	...	...	2
In use at the end of the year ... ..	...	...	...	...	2

WINSFORD URBAN DISTRICT.

Note.—The matter found on pages 3 to 5, and 8 to 18 inclusive, is to be read as part of this Report.

Area.—Unchanged.

Population.—Early in the year a very careful examination of the rate-books was made, to ascertain the actual (instead of the estimated) number of inhabited houses. Taking the inhabitants per house to be 4·8, (as it was in 1901), we get a population of 10430 ; which therefore stands as the “estimate” for 1907 ; and varies very little from the 10445 estimated on a less accurate basis for 1906 ; being a decrease of 15, (on what had been an increase of 110 over 1905). This is as near absolute correctness as we can get without a Census.

Tables.—A complete statistical history of the year, and comparison with previous years, may be read, even if no comment were added, in the series of 14 Tables which have been prepared.

The average birth-rate falls from 32·7 to 30·1 ; the average death-rate from 15·0 to 14·8 ; the average zymotic death-rate from 2·0 to 1·9 ; and the average infantile mortality figure rises from 130 to 134.

The standard of comparison is thus itself slowly becoming improved ; and consequently it is more difficult for any particular year to be markedly better than the average.

1907.—The year under review will, however, be found to do this, with the single exception of a decline in the birth-rate. It generally happens that a low birth-rate is accompanied by a lower infantile mortality and zymotic rate. See paragraph on page 9, for a possible deduction from these facts.

Births.—Table 76 presents all the details in a form which can be more easily grasped than by any lengthy written reference. Table 68 shows that the number of births (298) has never before been below 300 ; and the Rate (28·5) has never before been below 30·0. The Rate is 1·6 below the average ; though it is 2·2 above the Rate for England and Wales in 1907, (26·3).

Illegitimate Infants.—(Table 76). The number born is 23 ; nearly double the number in 1906 ; and 7·7 per cent. of all births. There was 1 death among them, or 4·4 per cent. ; whilst 30 deaths among 275 legitimate births give a ratio of 10·9 per cent.

Deaths.—(Tables 68, 71, 72, and 74). The number actually registered was 146; of which 8 can be discarded as non-residents, (4 in the Albert Infirmary, 4 elsewhere); whilst 1 in the Workhouse, 3 in the Davenham Hospital, and 1 in the Manchester Royal Infirmary must be added; making a total of 143; and a Rate of 13·7. This is 1·1 below the average; is the lowest but two in Table 68; and is 1·3 below the Rate for England and Wales in 1907 (15·0).

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus :—

	No. of deaths.		Actual Rate.
January	12	...	1'150
February	12	...	1'150
March	11	...	1'054
April	18	...	1'726
May	16	...	1'534
June	11	...	1'054
July	5	...	0'479
August	9	...	0'863
September	6	...	0'575
October	13	...	1'246
November	10	...	0'959
December	20	...	1'918
	<hr/> 143		<hr/> 13'708

Uncertified Deaths.—Five, viz. :—February 26th, F., 8 months, teething, convulsions; April 10th, M., 3 days, convulsions; May 20th, M., 52 years, heart disease; November 17th, F., 4 years, diphtheritic croup; November 20th, M., 3 months, bronchitis.

Coroner's Inquests.—These were held in 13 cases on residents, (besides 3 on non-residents), viz. :—December 28th, 1906, M., 64 years, Bright's disease and exposure; April 16th, M., 2 years, accidentally drowned in a pit; May 3rd, M., 54 years, found drowned; June 4th, F., 26 years, puerperal fever; June 8th, M., 9 years, accidentally drowned; June 10th, F., 24 years, puerperal fever; August 9th, M., 41 years, injury to spine from a fall; August 11th, M., 1 day, debility; October 13th, M., 69 years, suffocated in a ditch into which he fell whilst in a fit; October 20th, F., 4 years, accidental burns; November 14th, M., 39 years, fractured pelvis, from a crush; December 14th, M., 58 years, heart failure; November 18th, F., 44 years, chronic rheumatism.

Comparative Position.—(Table 75). This is for 1906. Winsford stands about 19th or 20th in the list of 36 Urban Districts. This is better than in 1905, but is still lower than usual. I hope 1907 will show an improvement.

Infantile Mortality.—The deaths under one year of age were 31, or 14 below the average; and were in the same proportion

to the 298 births as is 104 to 1000. Table 68 shows this to be the best result except only in 1901. The preceding year (1906) was the worst, except 1897; (see Annual Report 1906, pages 83, 84); but why there should be this extreme variation between two consecutive years, it is impossible to see.

Mortality among Old People.—40 deaths; or 28 per cent. of all deaths.

Notifications of Infectious Disease.—These numbered 80; principally scarlet fever and diphtheria, (Tables 70 and 78). This is twice as many as 1906, and 10 above the average; in fact it is the largest number but four.

Isolation Hospital.—42 cases were removed to the Hospital, which therefore proved of incalculable value, by ridding the District of so many *foci* of infection. In fact, had it not been for this, there is every reason to believe that we should have had a scarlet fever epidemic rivalling those of 1893, 1896, and 1900. 12 cases of diphtheria, 29 of scarlet fever, and 1 of enteric fever were removed. 3 of the diphtheria cases proved fatal; but the Hospital must not be blamed for that; the reason was the extraordinary delay in seeking medical assistance, which led to the children being so seriously ill when admitted, that Hospital treatment was too late to save them. One died on the second day, one on the fourth, and one on the eighth, after admission.

Deaths from Infectious Diseases —(Table 79). There were 5 deaths from diphtheria; the largest number in a year since 1890; 1 from measles, 3 from whooping-cough, and 2 from diarrhœa; total 11; Rate 1.0. This is the lowest total of "zymotic" deaths, except in 1901 and 1903. There were also 5 deaths from phthisis, 5 from puerperal fever, and 1 from erysipelas. See also paragraph in Annual Report 1906, pages 84, 85.

Small-pox.—Absent.

Vaccinations.—By the courtesy of Mr. Pimlott I am enabled to present Table 77; which gives the statistics for the Over Sub-District of the Northwich Union, of which the town of Winsford forms more than three-fourths. In 1906 334 children were vaccinated, out of 356 surviving; or 94 per cent. If we include those temporarily postponed the percentage is 96. Practically the same results have been obtained over the whole 11 years for which I have got out the figures; and similar results are attained in all my other Districts. One more year, 1907, will be added to this list of "national insurance against small-pox." After that, however, owing to a new Act of Parliament, which smooths the road for the so-called conscientious objector,

we must expect a falling-off, and a corresponding increase in the unprotected population. After 5, 10, or 15 years of this procedure, small-pox will reap a rich harvest. The pity is that the victims will be the children, who are not responsible, instead of their parents, who (themselves protected) are responsible, for this foolish discarding of a scientific and certain safeguard.

Measles.—A somewhat severe epidemic arose in the later months of the year. It began in Over, and afterwards spread to Wharton. The Council permitted me to follow the course I now always recommend, (see Middlewich Report in this volume, page 106; Annual Report, 1904, page 15; and Annual Report, 1905, pages 14, 15). Two lady-inspectors were appointed in Over; and at a later period a qualified nurse was appointed in Wharton; to make daily domiciliary visits and give advice. 120 cases were known and visited, up to December 31st, and only one death occurred, a child in its second year, which died really from pneumonia. My own belief, (because I have now obtained similar results in many instances, besides seeing opposite results follow inaction), is emphatic, that we both checked the epidemic, and saved lives.

I wish to express my thanks especially to Mr. Hickson, the Inspector. He visited many cases himself, besides supervising the work of the lady-inspectors; he kept a careful record of cases; and he communicated almost daily with me by post; so that it was only necessary for me to visit the District myself twice or thrice, in connection with this matter; and yet, although I was 17 miles away, I “had my finger on the pulse” of the epidemic, and had everything under control. This is a good object-lesson to other Districts and to other Councils how a Health Department ought to be managed.

Scarlet Fever.—34 cases occurred, of which 12 were scattered over the District (Over, 4; Wharton, 8); and throughout the whole year. The first 4 (February to April) were not removed; the last 8 (May to December) were sent to Hospital. The remaining 22 cases formed a well-defined epidemic in the Meadow Bank neighbourhood; 3 in September, 7 in October, 6 in November, and 6 in December. The whole of these were removed to Hospital. No deaths occurred.

It is impossible to speak too highly of the Inspector's work here again. He discovered several cases himself, by house-to-house visitation, got a doctor called in, and had them safe in Hospital before their parents (if it had been left to them) would have known that there was danger. Disinfection was promptly carried out in every case. Only 11 houses were affected; one contributed 7 cases, 2 had 3 each, and 1 had 2. This is fairly good evidence as to the vitality of the infection.

A steam disinfector for bedding and clothing would add greatly to our power to check scarlet fever.

Whooping-cough.—A severe epidemic was prevalent at the same time as Measles. This is a disease much more difficult to control than Measles; in fact I have not yet discovered an efficient control for it. In the present case we were able to make use of the lady-inspectors (above referred to). 120 cases were known and visited, up to December 31st. 3 deaths occurred, all under 2 years of age, and all from pneumonia as a complication. Contrasting this with the uncontrolled epidemic of 1897, when an unknown number of cases provided 33 deaths, one can almost believe that this epidemic, like Measles, was beneficially affected by the measures taken.

Chicken-pox and Mumps were also prevalent, to a smaller extent, at the same time; 18 and 8 cases respectively being officially known and visited.

Diphtheria.—20 cases occurred, with 5 deaths; making 29 cases with 9 deaths in two years. Tables 78 and 79 show nothing to equal this, in severity, in the last 17 years. 12 cases were sent to Hospital, with 3 deaths. (See paragraph above, "Isolation Hospital.") 12 cases occurred in Over, (2 in March, both fatal; 2 in April; 6 in June; 1 in October; and 1 in November, fatal); and 8 cases in Wharton, (1 in March; 1 in June; 1 in November, fatal; and 5 in December). No common cause was discovered. Infection from one case to another was probable in Over in June, and in Wharton in December. I have no further evidence; and can therefore put forward no opinions or conclusions.

Enteric Fever.—1 case, imported. In Hospital 9½ weeks. Recovered.

Rheumatic Fever.—3 deaths; males, 15 and 24 years; and female, 29 years.

Influenza.—1 death, in January; F., 53 years.

Diarrhœa.—2 deaths, both under one year of age, one in January, one in August. The latter was certified as "gastro-enteritis"; so that a complete absence of summer or epidemic diarrhœa is to be noted.

Puerperal Fever.—9 cases notified; 5 deaths. I have little doubt that other milder cases also occurred. The first case was in January, in the practice of Midwife A, (who has had previous cases, one fatal); this case died. The second case was in March, in the practice of Midwife B, (an old, untrained woman, who has had at least one case previously); this recovered. The third was in March, in the practice of Midwife

C, (a fairly satisfactory midwife) ; this recovered. The fourth and fifth cases, both fatal, occurred in June, in the practice of Midwife A. These were the subject of inquests ; and this midwife's name was removed from the Roll by the Central Midwives' Board. The sixth and seventh cases occurred in September, in the practice of Midwife C, accompanied by a medical practitioner in the first case. Very unfortunately, no notification of this case, which proved fatal, was made ; and I only learned of it from the Registrar's list of deaths. (The Council severely censured the medical practitioner). The second case was infected directly from this one ; but recovered. The eighth case occurred in November, in the practice of Midwife D, (an untrained midwife), and was fatal. The ninth case occurred in November, in the practice of Midwife A, (just before her removal from the Roll), and recovered.

Erysipelas.—16 cases were notified ; with 1 death, occurring in a child 2 months old.

Phthisis.—5 deaths ; Rate 0·5. This is only half the average. The average for the 11 years 1890 to 1900 was 12 ; that for the 7 years 1901 to 1907 is 6. The deaths in 1907 include 4 males and 1 female : ages 14, 32, 36, 39, 44 years ; average 33 years.

Other Tubercular Diseases.—No death is ascribed to any other tubercular disease ; which is in striking contrast to the fashion at Middlewich (only 4 miles away).

Cancer.—11 deaths ; Rate 1·0. 3 males, 8 females. In 9 cases the digestive tract was affected ; in 1 the breast ; in 1 the pelvis. Ages 35 to 80 years ; average 59 years.

Respiratory Diseases.—21 deaths ; Rate 2·0. All but 5 occurred either in young children or in aged persons.

Alcoholism.—1 death ; M., 44 years.

Diseases of Parturition.—2 deaths ; F., 44 years, hæmorrhage ; F., 29 years, convulsions.

Heart Diseases.—22 deaths ; Rate 2·1.

Accidents.—7 deaths. See "Coroner's Inquests."

Systematic Inspection.—Evidence of the proper performance of this duty can be gleaned above ; and will also be found in the Inspector's Report.

Insanitary Property.—4 cottages in High Street have been pulled down. 4 cottages in Station Road are closed and 2 pulled down. 6 cottages in Chapel Street are to be improved. 4 cottages at Grange Hill are under consideration by the owners, who have had informal notice,

Inspector of Nuisances.—Mr. Ralph Oakes, the late Inspector, died on May 20th, aged 76 years, from the same illness (apoplexy) which incapacitated him in July, 1905. Mr. Thomas Hickson has performed his duties with exemplary conscientiousness and thoroughness; and has been of the greatest possible assistance to me. I have much pleasure in printing his Report over his own name; and feel that there is no need for me to make further reference to the matters which he deals with.

T. W. H. GARSTANG,

March 4th, 1908.

D.P.H. Vict.



INSPECTOR'S REPORT.

Dairies and Cowsheds.—I respectfully submit my second Annual Report, being a synopsis of work done in this Department during the year ending December 31st, 1907. All Dairies and Cowsheds have been inspected once, and in most cases twice, during the year. Dr. Garstang has also accompanied me on many of these visits, and where defects or infringements of the Regulations have occurred, steps have been taken to have the same put in order; reports being submitted to the Council on matters requiring special attention. 140 Notices to cleanse and limewash premises, etc., have been served on the owners or occupiers, and this work, with few exceptions, has been satisfactorily carried out.

Slaughter-houses.—There are 22 Slaughter-houses now in use in the District, 21 being licensed, and one being registered. All the licenses have been renewed by the Council on application being made by the owners during the year. One application for a license to fresh premises has been refused. These places have been regularly inspected and all defects or nuisances discovered remedied on Formal Notice being served.

Common Lodging-houses.—There are still only 2 in the District, both being in Over. The premises have been frequently inspected and found clean and well conducted. No breach of the Regulations has occurred. Formal Notice has been served on one occupier in Over for using unregistered premises as a Common Lodging-house; the nuisance was however abated without further measures being necessary.

Vans used as Dwellings.—27 of these Vans have been inspected during the year; no cases of over-crowding or other nuisances were discovered, and no cases of infectious disease occurred.

Canal Boats.—There are only 8 Boats on the register, all being of the River Class, viz.:—steamers and barges. 25 inspections have been made, and I must again comment on the neatness and cleanliness of the boats observed on these visits. The condition of the boats, generally, is fairly good. The defects and infringements noted were of minor importance, and compliance with the Regulations has been secured without difficulty. There are a large number of boats of this class plying on the River Weaver, but as most of these are registered under the Merchants' Shipping Acts, they do not come under the direct supervision of the Council.

Factories and Workshops.—There are 30 Factories and 143 Workshops and Workplaces on the Register. These places have been visited and inspections made as frequently as opportunity has occurred. The conditions as to cleanliness, ventilation, sanitary convenience, and other matters (especially as regard the Factories) are generally satisfactory. At four Workshops more efficient means of ventilation has been secured. At two Workshops, closet accommodation has been provided, where none previously existed, and at one Factory additional sanitary convenience is being provided by the erection of three extra pail closets.

Home Work.—Messrs. Crook & Son, Ltd., Clothing Factory, Siddorn Street, is still the only Factory in the District where Home Work is given out. Two lists have been received from this firm, one in February containing seven names, the other in August containing nine names. I have regularly visited and made careful inspections of the homes where the work is carried on and found them to be clean, wholesome, and satisfactory. No cases of infectious disease have been notified in any of the homes, and no over-crowding was discovered.

Peat Pails.—The number in use in the District is 324, being an increase of 12 for the year. The pails are changed and cleansed once each week, the work being carried out by the Council's employees in covered wagons. The contents are distributed on land approved by the Council.

Privy Middens.—The number of Privy Middens in the District is 1445, 12 having on Formal Notice been converted into Pail Closets, and 13 substituted by Water Closets. The cesspools have been emptied three times during the year, the contents being as usual distributed on open land outside the District; the work is satisfactorily performed by contract. Most of the Privies have been inspected during the year, observations made, and a large number of nuisances dealt with in connection with the same. The Council continue to encourage and urge the adoption of the Water Carriage System where house-drains are connected with the Public Sewers.

Water Closets.—The number in the District is 593, being an increase of 36 for the year, 23 of these are attached to houses having been built during the year, and 13 having been erected in place of Privy Middens, mostly on Formal Notice being served on the owners. All nuisances occurring in connection with these closets have been promptly and successfully dealt with.

Ashpits.—The whole of the Ashpits in the District are scavenged at the Council's expense, 12 times each year. The

deposits are taken on to waste ground owned by the Council, or to other suitable places, which from time to time they may approve. 12 new ashpits have been built, and 8 portable ashbins have been fixed during the year.

Abatement of Nuisances.—340 Formal and Informal Notices have been served in connection with the abatement of nuisances ; in most instances these have received prompt attention, and in cases where the nuisance continues to exist, special measures are adopted to secure the abatement. A large number of nuisances, however, occurring in the District, are abated on informal request being made.

Overcrowding.—12 cases of Overcrowding have been dealt with during the year, and the nuisance abated in each instance, except one which is still under observation.

Disinfecting.—70 houses have been disinfected, also 50 lots of bedding, clothing, etc., disinfected or destroyed, after infectious disease, during the year. The whole of this work has been done personally, or carried out under my own direct supervision. This has chiefly been done by means of a spray, cyllin or corrosive sublimate being the disinfectants generally used. The Council are provided with a Defries Equifex Sprayer for this purpose, which is an excellent and most satisfactory apparatus. In a few instances the work has been done by means of fumigation. 9 Schools in the District have been twice disinfected, and 6 Schools disinfected after infectious disease.

Infectious Disease.—All cases of infectious disease have received attention immediately on being notified. The house has at once been visited, the origin of the disease investigated, and details as to the sanitary condition of the premises taken. Whenever possible the patient has been promptly removed to Hospital, and the sick-room, bedding, etc., disinfected at once. In the few cases occurring where home isolation has been unavoidable, a regular and strict supervision of the home and the inmates has been maintained, and disinfecting and cleaning of the premises carried out on the recovery or death of the patient.

House to House Inspection.—This important branch of duty has received special and careful attention when temporary freedom from other matters has made it possible ; 140 houses have been so inspected, observations made, and the results reported to the Council. Among other matters discovered and dealt with in consequence of these visits were—four cottages without yards or back premises, or facilities for through ventilation ; defective privies, or leaky, or improperly covered cess-pools at 35 cottages ; yards unpaved or in insanitary condition,

at 8 cottages ; pig-styes improperly drained, or not drained at all, or under the required distance from the opening to dwellings at 12 cottages ; and overcrowding at 4 cottages. All these nuisances have been abated, or work in reference to the same is in progress. Dr. Garstang has rendered valuable help in carrying out these duties, and has made special reports on those matters requiring more serious consideration.

I must again thank the Medical Officer of Health for the judicious counsel and ready help given, especially in regard to the more difficult duties of the office.

THOS. HICKSON, A.R.San.I.,

Inspector.

22nd January, 1908.



Bucklow Joint Hospital Board.

This is not a Report under Art. 18, (14) and (16), of the Local Government Board's Order; but is published at the suggestion of myself as Medical Adviser to the Board, by the permission of the Board, for the information of the various Authorities which comprise it.

General Infectious Diseases, (scarlet fever, diphtheria, and enteric fever), have been freely removed to the new Baguley Sanatorium, situated within the Bucklow Rural District, and now belonging to the Manchester Corporation. The Joint Hospital Board is entitled, by the original agreement, to the use of 35 beds.

By a further agreement which took effect from April 1st, 1907, the Board permits the removal of enteric fever cases to Mousall Hospital; the number of beds which can be claimed in Baguley and Mousall together is raised to 45; and 10 beds are allocated at the Small-pox Hospital at Clayton Vale. The Corporation resumes possession of the site at Newhall Green, purchases the temporary Small-pox Hospital there erected by the Board; also purchases the Board's Ambulances, and contracts, upon terms, to do all the Ambulance and Disinfecting work of the Board. In other words, the Board's District becomes entitled to share in all the benefits of the Manchester Corporation's Hospital arrangements.

Table 82 shows all details of Hospital treatment for 1907. Only 1 death (from scarlet fever) occurred among the 143 patients in the Baguley Sanatorium. 1 death also occurred at Mousall Hospital in a patient sent in from Hale as enteric fever. The case was not enteric fever, as a matter of fact, but it has to appear under that heading for statistical purposes.

Two deaths only occurred, therefore, among 156 patients. See foot of Table 82; where the totals include the cases remaining in Hospital on January 1st, 1907, and all those admitted from that date up to December 31st, 1907.

It will be noted that Ashton-on-Mersey only sent in 1 case, and Alderley Edge only 3 cases, during the whole year; also that in June, July, and August only 3, 5, and 3 cases respectively were sent in from the whole Joint District.

Dr. T. Basil Rhodes, Medical Superintendent of the Baguley Sanatorium, has kindly furnished me with a Table showing the results of treatment in that Institution for the past 4 years; and the figures are so creditable to the Sanatorium, so interesting to all my readers, and so difficult to express, understand, and compare, except in Tabular form, that I feel no hesitation in adding them to this Report as a final Table. (83).

T. W. H. GARSTANG,

March 7th, 1908.

D.P.H. Vict., Medical Adviser to the Board.

Register of Patients removed to the Baguley Sanatorium and
Monsall Hospital, 1907.

DATE.	DISEASE.	BUCK- LOW.	Alder- ley.	Ash- ton.	Hale.	Knuts- ford.	Sale.	Wilm- slow.		
Remaining from 1906.	Scarlet Fever Diphtheria Enteric Fever	7	...	...	...	13	1	6	Remaining in 31	
		...	1	...	1	...	1	...		
		...	...	...	1	...	...	...
		Admitted Discharged Died	Admitted. Discharged Died	Admitted Discharged Died	Admitted Discharged Died	Admitted Discharged Died	Admitted Discharged Died	Admitted Discharged Died		
1907 JAN.	Scarlet Fever Diphtheria Enteric Fever	2 5	2	...	...	1 6	1	1 3	Admitted Discharged Died	6 16 0
		...	...	...	1	...	...	...	Remaining in 21	
FEB.	Scarlet Fever Diphtheria Enteric Fever	2 2 1	2	...	...	3 5	1	3	Admitted Discharged Died	7 13 0
		...	...	...	1	...	...	...	Remaining in 15	
MAR.	Scarlet Fever Diphtheria Enteric Fever	1 1 1	...	...	1	8 3	7 1	1	Admitted Discharged Died	18 6 0
		...	...	...	...	...	...	...	Remaining in 27	
APR.	Scarlet Fever Diphtheria Enteric Fever	2 4 1	1	...	...	14 4	2 3	...	Admitted Discharged Died	18 13 0
		...	...	...	...	...	...	...	Remaining in 32	
MAY.	Scarlet Fever Diphtheria Enteric Fever	2 1	...	1	1	5 10	2 6 1	...	Admitted Discharged Died	11 18 0
		...	...	...	...	...	...	...	Remaining in 25	
JUNE	Scarlet Fever Diphtheria Enteric Fever	2 3 1	...	1	...	12	1 2 1	...	Admitted Discharged Died	3 19 1
		...	...	...	...	...	...	...	Remaining in 8	
JULY	Scarlet Fever Diphtheria Enteric Fever	2 2	...	...	...	2 4	2	1	Admitted Discharged Died	5 8 0
		...	...	...	...	...	...	...	Remaining in 5	

DATE.	DISEASE.	BUCK-LOW.			Alder-ley.			Ash-ton.			Hale.			Knuts-ford.			Sale.			Wilm-slow.			
		Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	
AUG.	Scarlet Fever	2	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	Admitted 3
	Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 3
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died 0
																							Remaining in 5
SEP.	Scarlet Fever	3	2	...	...	...	...	...	...	...	...	...	...	1	2	...	3	...	...	...	...	...	Admitted 9
	Diphtheria	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 4
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died 0
																							Remaining in 10
OCT.	Scarlet Fever	9	1	...	...	...	...	...	...	...	...	...	...	3	...	...	3	...	...	...	...	...	Admitted 14
	Diphtheria	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 6
	Enteric Fever	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died 0
																							Remaining in 18
NOV.	Scarlet Fever	7	4	...	...	...	...	...	...	...	1	...	...	3	2	...	...	...	...	2	...	...	Admitted 15
	Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 6
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	Died 0
																							Remaining in 27
DEC.	Scarlet Fever	2	9	...	1	...	...	...	...	...	1	...	...	5	5	...	5	...	...	1	2	...	Admitted 16
	Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged 18
	Enteric Fever	...	1	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	Died 1
																							Remaining in 24
	TOTALS	44	34	1	3	2	...	1	1	...	3	1	...	59	54	...	22	17	...	11	10	...	
		2	2	...	1	1	...	...	...	...	2	2	...	...	...	...	2	2	...	...	...	...
		2	2	...	...	...	...	...	...	...	2	1	1	2	1	...	...	...	...	...	...	...

	TOTALS.		
	Admitted	Discharged	Died
Scarlet Fever	143	119	1
Diphtheria	7	7	...
Enteric Fever	6	4	1
	156	130	2

TABLE 83. BAGULEY SANATORIUM.

YEAR.	SCARLET FEVER.	DIPHTHERIA.	ALL CASES.
1904.	6 deaths—193 cases. Percentage Fatality— 3·19 per cent.	2 deaths—37 cases. Percentage Fatality— 5·40 per cent.	11 deaths—245 cases. Percentage Fatality— 4·48 per cent.
1905.	8 deaths—206 cases. 3·88 per cent.	8 deaths—47 cases. 17·02 per cent.	18 deaths—271 cases; 6·64 per cent.
1906.	8 deaths—344 cases. 2·32 per cent.	7 deaths—80 cases. 8·74 per cent.	18 deaths—439 cases. 4·1 per cent.
1907.	3 deaths—425 cases. 0·70 per cent.	2 deaths—27 cases. 6·89 per cent.	5 deaths—456 cases. 1·09 per cent.
B.J.H.B. Cases alone. 1907.	1 death—116 cases. 0·85 per cent.	0 deaths—6 cases. —	1 death—124 cases. 0·80 per cent.

T. BASIL RHODES, *Medical Superintendent.*

THE MEDICAL OFFICER OF HEALTH. CONDITIONS OF APPOINTMENT.

(*Reprinted from "The Practitioner."*)

A good deal of feeling has been aroused—and some occasion for comment has been furnished—by the recent action of certain local authorities in revising the conditions on which their Medical Officers of Health hold their offices. Their action, and the acrimonious talk resulting from it, are very regrettable for several reasons. The squabbles will certainly not tend to improve the status of the medical profession generally, and of this important branch of it in particular, in the eyes of the man in the street; nor, on the other hand, are they calculated to attract the best men to a service in which good men are eminently needed. What is to be done? Certainly it is ridiculous to expect that men of education, intelligence, and scientific training should be absolutely under the control and at the mercy of popularly elected local bodies, directed and manipulated, as we so often find in practice that they are, by uneducated men, grossly ignorant of the laws of hygiene, and with various axes of their own to grind. It may often happen that the Medical Officer of Health, in the impartial discharge of his duties, finds himself compelled to take a line at variance with the interests of some local councillor; and it is unreasonable, and also prejudicial to the public interest, that he should only be able to do this at the risk of his position and emoluments. On the other hand, it scarcely seems just to demand that he should be an irremovable official. That would be to give him an undue advantage from which the public interest might, in conceivable cases, suffer. We feel, however, that he should at least have reasonable security of tenure; and our suggestion is that he should be given a right of appeal to the Local Government Board, and that the express sanction of that department should be necessary not only for his dismissal, but for any reduction of his salary or modification of his duties which would be tantamount to dismissal. Furthermore, it ought, we think, to be required that a full statement of the reasons for the proposed changes should be furnished, not only to the Board, but also to the Medical Officer of Health, so that he might have every opportunity of stating his own case and making his own representations. The Board would, of course, consider the interests, not of any individual, but of the town; and so justice would be done. The question is assuredly one which calls for early legislative treatment; and we have reason to hope, from statements made by the Parliamentary Secretary to the Local Government Board, that the matter will shortly be taken into careful consideration.



Printed at the
“Congleton Chronicle” Office,
by Robert Head.

